

Air Conditioning &
REFRIGERATION

NEWS

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Bendix License
Rights Upheld
In First TestCourt Asked To Set Size
Limits of 'Domestic'
Laundry Units

SOUTH BEND, Ind.—A recommendation upholding the rights of Bendix Home Appliances, Inc. to the exclusive manufacture and sale of its Bendix home laundry unit in the domestic field has been made by Special Master William A. Bertsch in U. S. District Court here, following a 200-day hearing. In his report to Special Judge Charles G. Briggie, Springfield, Ill., Mr. Bertsch recommends that the dividing line in size of laundry equipment for the domestic and commercial fields be specifically set by the court at 4.6 cu. ft.

The recommendation refers to the suit of Bendix against Rex Earl Bassett, Jr., John W. Chamberlain, the Chamberlain-Bassett Research Corp., and Borg-Warner Corp., seeking a decree to enjoin permanently Bassett and Chamberlain and the Chamberlain-Bassett Corp. from issuing a license to Borg-Warner granting that organization the right to manufacture and sell the type of washing machine involved in the controversy. Should the injunction be granted, the defendants would be prohibited from licensing anyone to use the patents in competition with Bendix.

Patent rights to build the laundry machines exclusively for the domestic field were obtained in 1935 by Laundri-Matic Corp., New York City, from Bassett and Chamberlain. Later, Laundri-Matic licensed Hydraulic Brakes Co. of Detroit to develop and produce the machines. Bendix acquired the patent rights in 1936 through purchase of Hydraulic Brakes Co., it is averred.

Development of the machines was continued, and contracts made from time to time concerning manufacture and sale of the units in the domestic field. However, rights in the commercial field were reserved by Bassett and Chamberlain, it is claimed.

Contracts held by Bendix cover rights to produce machines designed to handle not more than 18 pounds of clothes at one loading, it is averred. This made the volumetric size of the washing cylinder one of the major points in the controversy. In the end, the special master held with the plaintiff that 4.6 cu. ft. was the correct volumetric size to handle 18 pounds of dry material.

Claim of the defendants is that 3 cu. ft. was the correct volumetric size, and that Borg-Warner was entitled to manufacture a machine of the type in question, providing it had a cylinder with a content greater than 3 cu. ft.

Minneapolis Salesmen
Will All Have Same
Range Sales Talk

MINNEAPOLIS—Electric range prospects will hear the same basic selling story from every dealer and salesman in this territory, in a plan worked out by the Minneapolis Electric Appliance Dealers Association in cooperation with North Central Associated Electrical Industries. In the belief that more range sales will result if dealers and salesmen tell a uniform story of electric cookery's advantages before detailing the merits of their own particular brands of equipment, the association is conducting a contest for letters on "How I Sell an Electric Range," with cash awards for the three best entries received.

These letters then will be boiled

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Jobbers Ask Trade
Its Viewpoints on
Current Problems

CHICAGO—Next meeting of the board of directors of the National Refrigeration Supply Jobbers Association will be held May 6 and 7 at French Lick Springs, Ind., at which time the Manufacturers Relations Committee of the jobbers association will meet with the Jobber Relations Committee of the Refrigeration Equipment Manufacturers Association (Rema).

C. E. Borden of the A. E. Borden Co., Boston, president of the jobbers association, feels that some members of the trade such as non-member jobbers, service engineers, and others, may have some problems that they would like brought to the attention of the manufacturers. He, therefore, is inviting anyone to write to the association's headquarters—giving full details—about any problems which they believe should be brought before the Rema committee.

The Manufacturers Relations Committee headed by Alex Holcombe, Jr. of Victor Sales & Supply Co., Philadelphia, has promised to give full attention to all written correspondence, which should be addressed to the N.R.S.J.A. headquarters at 28 N. Clark St., Chicago.

Woodress, Moore &
White Promoted By
Century Electric Co.

ST. LOUIS—In recent executive promotions at Century Electric Co., J. L. Woodress has been appointed director of sales for the company, Earl S. Moore becomes general sales manager, and C. E. White has been named export manager.

Mr. Woodress has been with the Century organization since 1907, his first assignment being traveling sales

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Oakland Group Blames Newspapers & Dealers
For 'All-Time Low In Appliance Advertising'

OAKLAND, Calif.—Blaming both merchants and the advertising profession for a condition which is termed "the all-time low in appliance advertising," a recent bulletin of the Appliance Dealers Trade Association of Alameda and Contra Costa counties pulls no punches in condemning both factors for the condition of retail appliance advertising. Says the bulletin:

"Somebody once pointed a dirty finger at the 'creature that fouls its own nest.'"

"And yet that is exactly what a small minority of merchants in this community has been doing for several months. One day it is one store; the next day another store goes the first one two better on devious, deceptive, fraudulent, or bait copy."

"Not long ago advertising men and merchants on the Pacific Coast developed a plan to raise a lot of money to 'protect advertising from its enemies.' And yet the biggest, indeed the only real enemy, advertising has is the user of advertising."

"The only thing that can be said against retail advertising is that it is dishonest in too many cases. We don't need to raise money to correct that condition. Retailers can do it any time they give their sense of honesty a chance."

"As a matter of fact, to ask some users of advertising to contribute to a fund to fight the enemies of advertising is equivalent to asking a man to furnish the rope for his own hanging."

Priority Ratings
For Aluminum
Are AnnouncedRefrigeration Products
Fare Very Poorly In
Present Setup

WASHINGTON, D. C.—Aluminum for refrigerator evaporators, grids, and for air conditioning equipment has received a priority rating of B-7 for May in an index classification issued by the Priorities Division of the Office of Production Management. For all other refrigerator uses a B-8 rating has been established. (B-8 rating is "for products in which a reasonably satisfactory substitute for aluminum is available or can be made available.")

Electrical appliances, including washing machines, vacuum cleaners, and toasters have been given an aluminum preference rating of B-7. Repair parts received a rating of B-2.

Non-functional parts of refrigerators thus receive the lowest aluminum priority rating, established

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Boost In Refrigerator
Excise Tax Looms

WASHINGTON, D. C.—Forecast that the existing excise tax on mechanical refrigerators will be upped substantially under the new and far heavier tax program being lined up for the next fiscal year is reported by informed sources to be contained in the new tax proposal which the Treasury has submitted to the House Ways and Means Committee.

That other major appliances will be similarly affected is considered likely.

Nema Commercial
Sales Rose 45%
In February

DETROIT—World shipments of commercial refrigeration equipment during February by 15 members of the Commercial Refrigeration Section of National Electrical Manufacturers Association amounted to \$2,119,475, an increase of more than \$600,000 over the volume of \$1,489,461 reported for the same month of last year.

Shipments by Nema commercial firms to distributors and dealers in the United States during the month totaled \$1,993,684, as compared with \$1,276,068 in February of 1940. This

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Omaha Code Plan
Revised; Speedy
Action Expected

OMAHA, Neb.—The city council has abandoned attempts to adopt a consolidated heating, plumbing, and air conditioning code, and will have three different codes instead. Air conditioning and refrigeration will be included in one code.

The air conditioning and refrigeration code will create an examining board and provide for examinations to qualify masters and journeymen, as well as regulate the installation and maintenance of air conditioning and refrigeration. Present plans are to create a board of four members to be known as the examining board for air conditioning and refrigeration, to be composed of the chief engineer of the building department, who shall

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'Refrigeration In Defense'
Theme of ASRE Meeting
May 2 In New York

NEW YORK CITY—"Refrigeration in Defense" will be the theme of the May 2 meeting of the American Society of Refrigerating Engineers in the American Radiator Co. meeting salon, 50 W. 40th St., and an imposing program has been prepared to cover refrigeration and air conditioning's part in the defense program.

A feature of the program will be a talk by C. B. Morrison, recently returned from London, England, where he was a representative of York Ice Machinery Corp. He will draw some conclusions from his experiences with refrigeration in a country actually at war.

John F. Stone of Johns-Manville will preside at the meeting and will talk on where refrigeration is used in the defense program. W. C. Goodwin, Westinghouse engineer, will describe the air conditioning of "blackout" plants used for airplane production. The strategic materials situation will be discussed by William B. Henderson, executive vice president of the Air Conditioner Manufacturers Association.

March Shipments By
Crosley Greater Than
All of 1940 Quarter

CINCINNATI—Shipments of Crosley refrigerators during March were greater than the total of all refrigerator shipments made by the company during the entire first quarter in 1940, reports Robert I. Petrie, vice president and general sales manager. Two and one-half times as many Crosley refrigerators were shipped during the first three months of 1941 as during the first quarter in 1940.

Miss Elliott Hits
Prevailing Price
Selling PracticeRetailers Association
Protests Methods Used
By Manufacturers

WASHINGTON, D. C.—Manufacturers and distributors of refrigerators and other consumer goods were warned April 17 by Miss Harriet Elliott, consumer commissioner in the Office of Price Administration and Civilian Supply, that the practice of selling merchandise at the "price prevailing" at the time of shipment rather than by selling at a specific quoted price at the time of sale will encourage price spirals.

Miss Elliott's statement was a reply to Roscoe R. Rau, of Chicago, executive vice president of the National Retail Furniture Association, who had notified her that some manufacturers of ranges, refrigerators, and other household appliances were using "price prevailing" methods of selling.

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'Any Price Too High'
Is Policy of New
Price Controller

WASHINGTON, D. C.—The basic presumption that any price is too high will be the guiding policy of the new Office of Price Administration and Civilian Supply, it was announced by Leon Henderson, administrator, upon taking over the office created by the President April 11 to curb price inflation.

Mr. Henderson revealed, at one of the longest press conferences ever held in Washington, that he considers his office vested with all the power necessary to enforce price stabilization. This does not mean jail sentences and other legal penalties for price profiteers. "OPACS," so christened by Mr. Henderson, will enforce price ceilings with economic sanctions. Among these are powers over distribution and transportation facilities.

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R. Cooper Installs Units
For Camp Grant

CAMP GRANT, Ill.—Food storage capacity of 77,000 cu. ft. of refrigerated space sufficient to furnish food for 14,000 men, will be provided by new refrigeration equipment being installed in this army camp by R. Cooper Jr., General Electric distributor.

The \$30,000 plant includes two G-E 50 hp. and one 40-hp. condensing units installed in conjunction with evaporative condensers. These are connected to nine floor mounted Cannon coolers which refrigerate four large storage rooms. Condensing units are equipped with cylinder bypass to give capacity modulation

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Excise Taxes Doubled
Over March 1940

WASHINGTON, D. C.—Excise tax collections on mechanical refrigerators during March were almost double those of the same month of last year, according to statistics compiled by the Bureau of Internal Revenue. Collections in March this year amounted to \$1,816,901.28, as compared with \$933,517.15 in March, 1940.

From Footlights To Kitchen



Many a lovely young housewife who envies the interesting and exciting life of a glamorous "Vanities" star would be surprised to know how eagerly some of these same "Vanities" beauties are looking forward to the day when they will be presiding over their own kitchens. Lovely Jetty

Parker and Virginia Maple, who have leading roles in the current Earl Carroll Vanities, were glad to receive some culinary instruction, while in Cincinnati, from Mrs. Mary Burnett, of the Cincinnati Gas & Electric Co., in her department's model kitchen, which features Crosley appliances.

Priorities Division Classifies Users of Aluminum For a Basis of Shipments

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for products in which a reasonably satisfactory substitute for aluminum is available. The rating of B-7 applies to products in which no reasonably satisfactory substitute for aluminum is available.

The ratings will form the basis of aluminum shipments by producers and secondary smelters during May. The Priorities Division established the ratings for various specific products without waiting for the first monthly report of aluminum producers under the priorities system. Consequently, the division expects modification of the index after the May shipments and as a result of the actual ratings given by producers. Reports are that widely different ratings for the same product are now being given by competing producers.

The refrigerator and other appliance ratings may be compared with some other items, such as automobiles which received a B-4 classification. This rating was designed to

apply to products which cannot be redesigned to use substitutes for aluminum without serious disruptions and for which there is substantial use in defense channels.

Aluminum cooking ware received a B-8 rating. The B-7 rating includes clocks, dishwasher parts, irons, mixers, and waffle irons in addition to the appliances already mentioned.

A B-7 rating was given radio condenser cans, variable condensers, condenser foil, loud speaker parts, microphones, recording disks, and tube shields.

It was also ordered by the OPM that

"Deliveries by any producer on contracts or orders having a preference rating of B-2 to B-8 inclusive shall not exceed the percentage indicated below of the customer's monthly average of 1940 shipments from the same producer for corresponding purposes. This percentage may be changed from time to time by the Director of Priorities.

(The following classification apparently will apply throughout May.)

"B-2	80%
"B-3	70%
"B-4	60%
"B-5	50%
"B-6	40%
"B-7	30%
"B-8	10%

CASH IN WITH

QUICK FROZEN FOOD DISPLAYER

Write to
The REOL CO.
Hearst Tower
Baltimore, Md.

Here's the KEY TO BIGGER PROFITS



BAKER Equipment Opens the Door to New Opportunities Created by National Defense

●The huge expansion in the field of refrigeration and air conditioning brought about by the National Defense program presents greater opportunities than ever to distributors who are prepared to furnish the size and type of equipment required for these new applications. BAKER equipment is especially well-suited for these fields

because of its complete range of sizes, flexibility of operation, high efficiency, and dependable, low-cost operation. BAKER's enviable reputation for unusual high quality paves the way for your salesmen to call. Prepare NOW to get your share of this increased business. Write today for complete information.

BAKER ICE MACHINE COMPANY, INC.
1506 EVANS ST. OMAHA, NEB.
Sales and Service in Principal Cities
AUTHORITY ON MECHANICAL COOLING FOR 35 YEARS

Omaha Will Split Codes Between Labor Provisions & Installation Requirements

(Concluded from Page 1, Column 4)

be ex-officio secretary, and three members selected by the commissioner in charge of the building department.

Of the latter one shall be a registered professional architect, duly qualified by registration as required by state statute; one shall be a contractor who has been regularly engaged in the business in question in Omaha for the past five years; and one a journeyman installer who has for at least the past five years had experience in the trade. Terms would run three years, and no member would receive compensation.

The board would conduct examinations and no applicant would be granted a certificate who failed to pass correctly at least 75% of all tests. The examination for journeyman's certificate would be for the purpose of determining the applicant's knowledge of the city ordinances regulating the installation of air conditioning and refrigeration systems; his skill to properly and safely install the various parts and appurtenances necessary for such systems; his general knowledge of apparatus and equipment and the piping or connection of same, and his knowledge of the properties and characteristics of refrigerants as applied to such work.

Examination for master's certificate would include the points covered in the journeyman's tests, plus his ability to direct and take charge of such work and to properly design and place the various parts and appurtenances in accordance with city ordinances. Any work involving installation, repair, or servicing would require the presence of a person holding a master's certificate, although a general heating or building contractor would be allowed to include the price of air conditioning and refrigeration work in his bid and contract with the owner or his agent, provided the contractor in turn entered into a subcontract with a legally qualified holder of a master's certificate.

The holder of a first grade stationary engineer's certificate would be qualified to take charge of operation and maintenance of a refrigeration plant after it was installed.

The fee for a master's certificate would be \$25, and \$10 for the journeyman's. Renewal fees would be \$10 and \$2, respectively. A surety bond of \$1,000 would be required from the master's certificate holder, and only one such bond would be required from a firm. The code also would provide for issuing a limited certificate for competency for refrigeration and steamfitting.

General provisions covering air conditioning and refrigeration installations would be the minimum requirements adopted for the protection of health, welfare, sanitation, and safety of the community, and for the protection of the ultimate purchaser

or user. A permit from the building department would be required for all work, whether installation or repair.

Work installed unlawfully would be required to be removed.

No permit fee would be required for installation of refrigeration package units of ½ hp. or less. Fee for remote refrigeration systems of ½ hp. or less including one evaporator, \$1; all refrigeration systems for each additional ½ hp. or fractional part thereof, over ½ hp. up to and including 3 hp., 50 cents; all refrigeration systems over 3 hp., an additional fee for each 1 hp. or part thereof, over 3 hp., 25 cents; each additional evaporator over one in any system, 50 cents.

Permit fees for refrigerating systems in which compression is obtained by other than mechanical means would have horsepower computed on tonnage basis, with 1 hp. assumed to equal 1 ton of refrigeration, based on measurement of 200 B.t.u. per minute per ton of the cold water or brine delivered.

Use of old materials or appliances would be illegal without the owner's consent, and in the case of installation of new equipment, the contractor would be required to furnish the city with test data, measurements, ratings, capacities, or other information that might be required.

No system containing a Group 2 refrigerant could be used for air conditioning for human comfort unless it be of the indirect vented closed surface, indirect closed surface, double indirect vented open spray, indirect absorptive brine, or primary circuit of a double refrigerant type with all refrigerant containing parts, except parts mounted outside of the building, installed in a machinery room used for no other purpose.

Packaged Products Top Commercial Gains

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accounted for all of the month's gains, as both Canadian and foreign shipments were below those of the same month of last year.

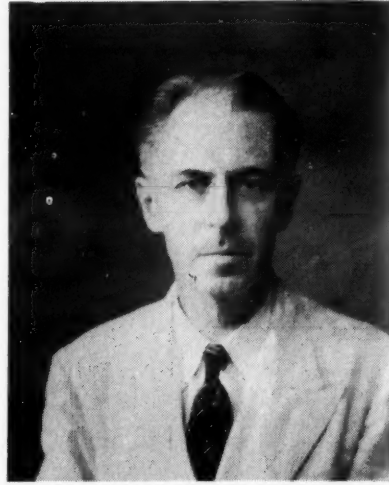
World shipments of commercial condensing units totaled 8,250 units valued at \$718,955 during February, as compared with 7,155 units valued at \$585,077 in the same month of 1940. Shipments to firms in the U. S. alone amounted to 7,562 units valued at \$658,088 during the month, compared with 6,300 units worth \$512,936 in February last year.

Packaged product shipments during the month were paced by bottle beverage coolers, with 5,647 units, valued at \$535,978, compared with 2,500 units, valued at \$202,858, last year. Notable gains were also registered by ice cream cabinets, with world shipments of 3,526 units valued at \$540,673, compared with 1,870 units worth \$299,725 in 1940, and pressure water coolers, with 1,653 units valued at \$173,003, against a 1940 figure for the month of 998 units valued at \$99,431. Bottle water cooler shipments this February were 194 units with a value of \$14,718, compared with 160 units worth \$11,135 in February, 1940.

Take Century Posts



JAMES L. WOODRESS
Director of Sales



EARL S. MOORE
General Sales Manager



C. E. WHITE
Export Manager

New Sales Executives Named By Century

(Concluded from Page 1, Column 2)

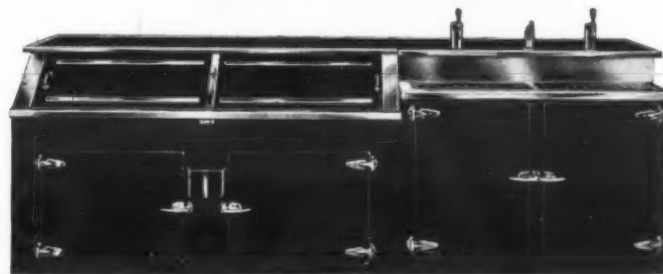
and service. He was successively assistant sales manager, sales manager, and general sales manager.

Mr. Moore has been with Century since 1916, except for service with the U. S. Marines during the first World War. After traveling extensively on domestic sales, he became export manager in 1920.

Mr. White joined the Century organization in 1919, and was a sales engineer and district sales manager until 1927, when he was sent to London. He spent 11 years as a foreign representative of the company in England and Europe.

A PERFECT COMBINATION

LA CROSSE CLUB SPECIAL



This model has become the dealers' favorite. A compact combination consisting of a two keg direct draw, two keg pre-cooler, and a fourteen case dry storage bottle cooler. Available with or without bar top.

Write Department A.R.-A41 for full particulars.

LA CROSSE NOVELTY BOX MFG. COMPANY
LA CROSSE, WISCONSIN

Distributor-Dealer Doings

Electrical Wholesalers' Inventories Over 1940

WASHINGTON, D. C.—Wholesale sales by 332 distributors of electrical goods reporting to the U. S. Bureau of the Census for February amounted to \$27,796,000, an increase of 54% over the same month of 1940 and a jump of 20% over January figures.

Inventories reported by 288 wholesalers of electrical goods amounted to \$26,300,000 at the end of February, an increase of 23% over those for the same period of 1940, and a gain of 6% for February over January of this year.

Collection percentages reported by 309 firms averaged 71% for February of this year, as compared with 66% for the same month of 1940 and 69% for January of 1941. Accounts receivable were 36% higher this February than for the same month of 1940, and were down 5% from figures for January. Total accounts receivable reported by the 309 electrical goods firms was \$33,288,000.

Display of Heater Bill Results In Sales

MILWAUKEE — Displaying an actual water heater power bill and pictures of a model home to tie in with the annual home show attracted many prospects and produced several sales for B. & G. Electric Co. here.

Arranged by Manager Bryce W. Tolbert, the window featured an electric water heater on which was posted a receipted bill (well under \$5) and a letter from the owner stating how pleased he was at the low rate, which was for a family of five.

Along with pictures of the model home were placards stressing the fact that this home was well equipped with electrical appliances. Because of the general interest in the home show, many passersby were "stopped," Mr. Tolbert reports.

Buckley & Scott Form New Distributorship

WATERTOWN, Mass.—Rapid expansion of wholesale activities has caused Buckley & Scott Utilities, Inc. to form Major Appliance Corp. to distribute Crosley washers, ranges, and ironers, Duo-Therm heaters, Electrol oil burners, Puritan Steel kitchen units, and Utica boilers.

John W. Scott, president of the parent firm, is also head of Major Appliance. R. G. Paine is vice president and general manager, assisted by T. D. Price. District representatives include I. M. Nelson, W. L. Howe, Frederick Gallup, and George Johnson.

The distributorship has located its offices and warehouse at 60 Arsenal St.

Houston Sales Topped 1,000 In February

HOUSTON, Tex.—February sales of household electric refrigerators by dealers in the territory served by Houston Lighting & Power Co. just edged over the 1,000-unit mark by a margin of four boxes, according to figures compiled by this utility. Refrigerator sales for the first two months of the year totaled 1,834 units.

Three air conditioning systems were sold by these dealers during February, but none had been sold during the previous month.

A more complete tabulation of major appliance sales in the Houston area for February and the first two months of the year follows:

Appliance	February 1941	2 Months 1941
Refrigerators	1,004	1,834
Ranges	3	13
Water Heaters	3	4
Home Food Freezers	6	6
Radios	1,585	4,174
Vacuum Cleaners	325	683
Washing Machines	562	1,361
Ironers	23	57
Air Cond. Systems	3	3
Attic Venti. Systems	84	126
Milk Coolers	2	3
Electric Blankets	2	7

\$250 Awards Offer on Floor, Window Display Of Water Coolers

NEW YORK CITY—Two \$250 prize electric water heater contests, one for window displays and the other for floor displays, being sponsored by the Modern Kitchen Bureau, will close June 15.

Utilities and dealers handling water heaters are eligible, but the displays must be in use sometime between Jan. 1 and June 15. Each entry must include one glossy print not smaller than 8 x 10 inches, which should be sent to Window Display Contest Committee, Modern Kitchen Bureau, 420 Lexington Ave., New York City.

Prizes in each classification are divided into \$100 first, \$50 second, and 10 prizes of \$10 each.

\$2 Million Refrigerator Market Seen For Dallas

DALLAS, Tex.—On the basis of a survey compiled by the Dallas Power & Light Co., and based on the records set up in the years 1939-40, prediction is made by the utility that as the doors swing open into the current season, the apparent potential market here this year will prove well in excess of \$2,000,000 in the fields of refrigeration alone.

One of the leading retailers of household appliances reported an average gain for the first three months of 1941 of nearly 88%. The utility's estimate is far more modest.

In its commentary on the market outlook for Dallas dealers, the utility company says in part:

"In 1939, electric refrigeration sales amounted to 7,603 units, with an estimated dollar value of \$1,292,510. In 1940 this figure jumped to \$1,500,000, an increase of 34.6%. This year it is estimated Dallas dealers should increase their electric refrigeration sales from 15 to 20% over the 1940 figure."

The growth of Dallas is pointed to as evidence that the current year will see this progressive gain fully maintained.

"The fact that new industries, new families, and many new businesses are moving into this area every day," the forecast cites, "makes the \$2,000,000 volume appear within easy reach. Cash registers will sing a merry tune in 1941, and dealers will profit in proportion to sales effort expended."

Jack Morrow Now Owns Newport Salvage Co.

BROOKLYN—Jack Morrow has become sole proprietor of Newport Salvage Co., which has replaced a former partnership arrangement operated under the name Newport Electric Motor Co. Located at 634 Osborn St. here, the firm will continue as a dealer in used household and commercial refrigeration equipment.

Granville Clark Head of G-E Asheville Group

ASHEVILLE, N. C.—New officers of the local chapter of the Retail Development League, General Electric's dealer training organization, have been elected as follows:

Granville Clark, Morganton, president; C. J. Hicks, Forest City, vice president; Jack Wallis, Asheville, secretary; and Hugh Whisnant, Hendersonville, sergeant-at-arms. Bill Morrison of L. W. Driscoll, Inc., G-E distributor in this area has been named honorary president.

Neon Sign Specialist Takes on Hotpoint

FAYETTEVILLE, N. C.—Walker Electric Co., which for many years has specialized in the sale and service of Neon signs, has taken on the complete Hotpoint line of appliances.



AUTOMATIC DEFROSTING ... and the three additional features which make it possible only in Norge!

Record-breaking sales to date already show that the Norge Night-Watch is recognized by women the country over as the greatest refrigerator advancement of the season... because it releases them from defrosting muss and fuss and gives them better refrigeration all day every day.

And now ready for action when more buyers than ever are ready to act is the greatest of all Norge promotions... the biggest profit-building retail selling event Norge has ever announced... built around this amazing Night-Watch:

★ SMASHING, COLORFUL NEWSPRINT TABLOID for wide circulation

★ SPECIAL FREE OFFER FOR NORGE OWNERS

★ TRAFFIC-STOPPING WINDOW DISPLAYS that will draw 'em in

★ ATTENTION-GETTING, ANIMATED DISPLAY that sells the Night-Watch as it demonstrates

★ COMPELLING RADIO CONTINUITIES to build more traffic

★ POWERFUL NEWSPAPER ADS to tie in with...

★ FULL-COLOR NATIONAL ADVERTISING that carries the Night-Watch story to millions of homes

Norge dealers, now in action, report: "Night-Watch promotion is a 'natural'... it's got everything to pull in buyers and sell them."

Here's the Feature that Women Want

BIG NEWS of the Norge Traffic-Builder is the separate Night-Watch Automatic Defroster for only \$14.95, list, available for any new or previous Norge model that's equipped with three exclusive Norge features that make possible fully automatic defrosting... Safety-Sealed Fast-Freezer, Handfroster defrost receptacle and always-usable Coldpack fresh meat drawer. Hundreds of thousands of these models are already in use... every owner of one of them is a natural Night-Watch prospect.

only \$14.95

**NORGE NIGHT-WATCH DEFROSTING
NOW COMES TO BIG-VOLUME MARKET**

Norge Models S-663, S-664P, S-903 and S-884P have the Night-Watch Automatic Defroster as standard equipment.

The Night-Watch can be plugged in on Models M-661, M-662 and M-902, because they are equipped with the three exclusive Norge features that make perfect automatic defrosting possible.

Standard equipment on four Norge 1941 models, the separate Night-Watch clock at \$14.95 is now available for other Norge models which have the three big exclusive Norge features... now brings the advantages of nightly automatic defrosting to the big volume market... gives Norge dealers a decided edge in the price bracket where there's volume and extra profit. See your Norge Distributor now or mail the coupon at the right.

NORGE DIVISION BORG-WARNER CORPORATION
670 EAST WOODBRIDGE, DETROIT, MICH.
RUSH full information about your NIGHT-WATCH TRAFFIC-BUILDER PROMOTION.
No obligation, of course.

Name.....
Firm.....
Address.....
City, State.....

Dealers and Users:
See NORGE Before You Buy!

Nema Firms Ship 8,250 Condensing Units In February

The following report of commercial refrigerating equipment sales for February, 1941 was made to the Commercial Refrigeration Section of the National Electrical Manufacturers Association (Nema) by the following 15 companies:

Baker Ice Machine Co., Inc., Brunner Mfg. Co., Carrier Corp., Crosley Corp., Frigidaire Div. General Motors Corp., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div. Nash-Kelvinator Corp., Merchant & Evans Co.,

Norge Div. Borg-Warner Corp., Servel, Inc., Universal Cooler Corp., Vilter Mfg. Co., Westinghouse Electric & Mfg. Co., and York Ice Machinery Corp.

SALES FOR FEBRUARY, 1941		Domestic		Canadian		Other Foreign		Total World	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1. Bottle Water Coolers—Complete.....	175	\$ 13,302	4	\$ 308	15	\$ 1,108	194	\$ 14,718	
2. Pressure Water Coolers—Complete.....	1,618	169,233	...	101	35	3,669	1,653	173,003	
3. Water Coolers—Low Side Only.....	37	3,672	2	85	2	85	41	3,842	
4. Ice Cream Cabinets—Complete.....	3,424	524,912	63	9,825	39	5,936	3,526	540,673	
5. Ice Cream Holding Cabinets Only (Remote).....	89	13,584	1	152	1	139	91	13,875	
6. Bottle Beverage Coolers—Complete.....	5,487	520,585	107	9,195	53	6,198	5,647	535,978	
7. Beverage Coolers (No High Sides).....	8	912	...	...	...	...	8	912	
8. Milk Coolers—Complete.....	55*	1,941*	...	...	1	124	54	1,817	
9. Milk Cooling Cabinets (No High Sides).....	...	...	...	...	...	...	...	...
10. Commercial Evaporators—Not Reported Above (Including Cold Diffusers, Brine, and Other Spray Evaporators, Etc.).....	1,944	90,730	411	11,405	119	15,959	2,474	118,094	
11. Condensing Units Less Than 1/2 Hp.....	2,676	107,808	52	2,307	105	5,445	2,833	115,560	
12. Condensing Units—1/2 Hp.....	1,853	108,403	39	2,489	142	8,888	2,034	119,780	
13. Condensing Units—3/4 Hp.....	1,364	115,925	57	4,978	98	8,026	1,519	128,929	
14. Condensing Units—1 Hp.....	751	81,438	36	3,939	55	5,662	842	91,039	
15. Condensing Units—1 1/2 Hp.....	381	51,270	29	3,690	...	...	410	54,960	
16. Condensing Units—2 Hp.....	221	38,774	10	1,755	31	4,984	262	45,513	
17. Condensing Units—3 Hp.....	141	28,912	2	368	22	4,592	165	33,872	
18. Condensing Units—4 Hp.....	78	21,722	3	480	5	1,207	86	23,409	
19. Condensing Units—5 Hp.....	56	20,301	...	...	...	...	56	20,301	
20. Condensing Units—7 1/2 Hp.....	7	4,477	...	...	...	...	7	4,477	
21. Condensing Units—10 Hp.....	3	3,210	...	...	...	...	3	3,210	
22. Condensing Units—15 Hp.....	1	1,127	...	...	...	...	1	1,127	
23. Condensing Units—20 Hp.....	3	1,729	...	...	2	2,057	5	3,786	
24. Condensing Units—25 Hp.....	...	...	...	...	...	...	...	...
25. Condensing Units—30 Hp.....	5	14,028	...	...	...	...	5	14,028	
26. Condensing Units—40 Hp.....	9	19,393	...	...	...	...	9	19,393	
27. Condensing Units—50 Hp.....	13	39,571	...	...	...	...	13	39,571	
28. Total—All Condensing Units (11 to 27).....	7,562	658,088	228	20,006	460	40,861	8,250	718,955	
29a. Condensers—Sold Separately Shell & Coil or Shell & Tube.....	...	...	...	...	...	...	...	...
29b. Evaporative Type.....	2	607	...	...	2	635	4	1,242	
30. Total—All Commercial Refrigeration.....	...	\$1,993,684	...	\$51,077	...	\$74,714	...	\$2,119,475	

*Includes sales and credits.

THIS NEW CATALOGUE HAS
BEEN DESIGNED FOR YOU



FOR YOUR COPY WRITE: HENRY VALVE CO., 1001-19 NO. SPAULDING AVE., CHICAGO

... it describes the industry's most complete line of packless and packed valves, strainers, driers and accessories ... Henry products are recommended by jobbers everywhere.

Better Food & Marches

Portable Walk-In Refrigerator Designed For British Armies

GLASGOW, Scotland—A portable walk-in refrigerator, designed for use by the British armies in the field, has been announced by L. Sterne & Co., Ltd. of this city. Known as the "Sterne Service Type Transportable Cold Store," the knock-down unit holds 10 tons of frozen meat at 18° F. with an ambient air temperature of 100° F. Design details of the cooler were reported in "Refrigeration and Air Conditioning," Canadian trade journal.

Built in sections, the portable refrigerator is shaped something like a pup tent, with coils mounted in the top of the "V." Methyl chloride refrigerating equipment is mounted at the rear end, the compressor being driven by a gasoline engine. Valves on both ends of refrigerant lines minimize the danger of moisture entering the system when the plant is in transit.

To accomplish the purpose for which the refrigerator was designed, it had to be easy to erect, durable, rigid, be capable of withstanding all kinds of climatic conditions, and have interchangeable parts. The cooler is made up of 10 sections, each forming a triangle, and each part interchangeable. The sections are bolted together with angle irons.

Another reason why the triangular

shape was selected was that the entire refrigerator can be covered with sand bags, for protection, and easily camouflaged. Because the unit is built close to the ground, it throws virtually no shadow.

The 10 sections, each measuring 12 ft. wide by 2 ft. 6 in. deep, and having a clear height of 6 ft. 4 in., can be erected by 14 men in three hours. Each section is framed in red cedar, which resists the white ant, and the sections are insulated with sheet cork dipped in bitumen. Sections may be floated ashore where no landing facilities are available.

To assure circulation of air in the refrigerator, a slatted floor has been provided. The coolers may be protected with canvas to minimize sun effect.

The refrigerators are constructed so that they may be halved, if necessary, or extended in length by the addition of more sections.

While the refrigerator was designed primarily for army use, the portable equipment is claimed by the manufacturer to have many peace time uses, particularly in connection with mining camps, lumber camps, road construction, and other places where large groups of men are working for a limited period of time.

Because Salesmen Share In Profits, Dealer Has No Trade-In Problem

PALESTINE, Tex.—Giving his two salesmen one-third of the gross profit on each sale, regardless of who makes the sale, is the solution to the compensation and profit problem devised by R. R. Belcher, who operates a refrigeration and range dealership here.

After trying several plans of paying his men, Mr. Belcher worked out this method two years ago. The gross profit, as calculated by this firm, is the difference between the cost of the unit (including freight and installation) and the amount of the net sale. Thus if a unit is sold for \$175 and total cost is \$100, the salesman receives one-third of \$75, or \$25.

One salesman works primarily on commercial units, while the other specializes on household units and ranges. Mr. Belcher assists both, occasionally making his own sales. But no matter who sells what and whether it is a floor sale or not, each salesman receives his profit on his line.

Trade-ins are also handled satisfactorily in this plan, Mr. Belcher believes. If, on the deal mentioned previously, the salesman allows \$45 on a used refrigerator, this allowance is deducted from the gross profit figure of \$75. The salesman receives his one-third of the remaining gross profit of \$30 or \$10. He has, however, a one-third interest in the traded-in unit. As soon as this is sold, presumably for \$45, he receives his third, \$15.

Salesmen are thus extremely careful in making allowances on trade-ins, explains Mr. Belcher. The commercial man, of course, works on the same principle.

The firm does not charge back repossessions against salesmen, but the salesmen are required to help resell all repossessed units without receiving any compensation. The firm believes that there is no theoretical profit in a repossession. Domestic repossessions amount to about 3% under this plan, Mr. Belcher says.

Salesmen Specialize Under New Setup That Doubles Firm's Appliance Volume

NEW ORLEANS — Eliminating outside salesmen but making specialists of the six inside men, dropping all appliance lines except one, writing its own advertisements, and compactly rearranging its displays have nearly doubled the volume of Haverty Furniture Co.'s appliance department in a year.

Under the former system the store contacted many customers, but less than one sale was rung up for every 30 prospects, whereas now two out of 10 are sold. For one thing, salesmen were formerly permitted to sell any appliance and none had the time to make a thorough study of all the products, which is necessary for a really intelligent and effective selling job.

One outside specialty man was responsible for calls on prospects, handling actual sales in the department during the evening, for the most part. The store gave up outside work because it believes that women have grown to resent the number of salesmen who call upon them each week.

In the new setup two salesmen

handle refrigerators; two ranges, and two washers and ironers. All sell radios, but they have received careful training so that they are familiar with all models.

After dropping all appliance lines except one, the firm was left with a price range (on refrigerators) from \$119 to \$200, wide enough to meet competition.

In redesigning the displays, appliances which had been strung out in long rows were arranged into neat "spots"—where every appliance is at arm's reach and comparative selling is simple. Every appliance sold is now shown in a 20 x 15-foot display section.

Giving up the idea of using "pre-fabricated" manufacturer advertisements, the advertising department writes its own, which are "tailored" to the buying habits of the New Orleans public. In each advertisement the "leader" price is mentioned, but a middle-price refrigerator (range, or washing machine) is always shown in the cut to make it plain that the store handles top quality merchandise.

Raley Electric Adds Philco Appliance

NASHVILLE, N. C.—Raley Electric Co., Kelvinator dealership operated here by A. R. Raley, has added the Philco line of appliances.

H. E. Clay Will Manage Hussmann In Dallas

DALLAS, Tex.—H. E. Clay, formerly of Minneapolis, has been named manager of the Hussmann agency here.

Rebuilt Refrigerator Models Offered as 'Promotion' Leaders

3 Price Ranges Quoted

PHILADELPHIA — Buying syndicates for retail stores in Baltimore and Philadelphia have informed their clients by bulletin of the rebuilt refrigerators available as "leaders" and promotional models, being offered in three price groups by Associated Refrigerator Plant, Inc., Philadelphia refrigerator reconditioning plant.

The price groups (to the dealer) in which these three types of rebuilt models are offered are \$24.50, \$29, and \$36. The bulletin advises a mark-up to a range between \$39 and \$49 for the \$24.50 group, and a corresponding mark-up for the other two groups.

In the \$24.50 group are such models as the General Electric G-40 4-cu. ft. box; the Frigidaire V-4 and V-5 4 cu. ft. and 5-cu. ft. boxes; and the Coldspot 255C 5.5 cu. ft. and the 440C 4.13-cu. ft. models.

Included in the \$29 group are the Frigidaire D-4 4-cu. ft. model and the AP-5 5-cu. ft. model, the Kelvinator K-4 and R-42 4-cu. ft. models, and the Norge model A 4.5-cu. ft. model.

The \$36 price class incorporates such models as the Frigidaire Master 6 ('33 and '34); the General Electric HE-5 5 cu. ft. and S-62 5-cu. ft. models; Kelvinator's NB 6 cu. ft. and PA or SA 5-cu. ft. jobs; the Norge D-5 6 cu. ft. and the A-45 5-cu. ft. models; Stewart-Warner 454-S 5 cu. ft. and 605 6-cu. ft. models; Westinghouse CL-45 4.5 cu. ft. and AL-65 6-cu. ft. models; the Crosley GAQ-50 5 cu. ft. and FA-60 6-cu. ft. models; and the Electrolux EE-40 4-cu. ft. model.

Hotel 'Displays' 234-Ton System In Show Window

MOBILE, Ala. — Air conditioning and refrigeration equipment is "on display" behind a large glass show window in the basement of the Admiral Semmes hotel. Guests visiting the hotel can view the 234-ton system, a 10-ton ice making plant, and a refrigeration system providing 1,200 gallons of ice water per hour.

A 200-hp. Carrier compressor, supplied with condensing water from an 87 foot well serves three air conditioning units. One having a capacity of 65,000 c.f.m. cools the guest rooms; a 15,000 c.f.m. conditioner located on the second floor handles the convention hall; and a third 10,000 c.f.m. unit cools public rooms in the hotel.

A combination of manual and automatic control makes it possible for the hotel guest to regulate airflow and temperatures in the individual rooms, and entire floors may be shut down by the building engineer at times when they are unoccupied. Otherwise, the entire system is under thermostatic control, set to maintain a temperature of 78° F. the year around.

Each of the 351 rooms in the hotel has a manually operated damper in the supply grille, in addition to a thermostat. Daily temperature charts are kept by the building engineer.

The air conditioning system was designed and installed as an integral part of the Admiral Semmes hotel, when the building was constructed last year. The system was "pre-assembled" in a nearby warehouse, and installed step-by-step as the building progressed. All piping and ductwork were installed before concrete and plaster had dried, thus assuring that no cutting of masonry was required later on.

Corridors in the hotels were used as ducts, saving an estimated 1,000 feet of sheet metal work through the building. Each room grille is located on the corridor side, and a return air grille is provided at the base of each door.

Heating is supplied from a low pressure boiler, equipped with both oil and gas burners, to prevent breakdowns from sudden drops in the pressure of gas coming from the Louisiana fields.

Design Changes Come To Big Compressors

York Adapts V-W Type To Ammonia Work

YORK, Pa. — The York V/W-type high speed compressor has been adapted to ammonia work. Principal difference between the new model and V/W "Freon" compressors is its water-jacketed heads, made necessary by higher head temperatures. A few slight changes in the selection of metals used inside the machine have also been made.

Standing only 4 feet high, the new V/W ammonia compressor operates at speeds up to 1,050 r.p.m.—21 times the speed of the 1885 model "Jarman Ice Machine." The new unit occupies approximately 1/40th of the room space of its early predecessor.

Vibration and noise have been cut to a minimum in the new ammonia machine, it is claimed; foundations have been eliminated; every wearing part is replaceable; the York balance seal and double-tapered roller bearings are used; and all parts are accessible. The machine can be mounted on roofs, upper floors, or in unused storage rooms.

High speeds permit the new units to be virtually direct connected to a steam turbine, through a gear drive. Thus the units can be operated in exhaust steam, where such a supply is available. In such cases the power cost is negligible, York engineers claim.

New Frick 'Freon' Units Are More Compact

WAYNEBORO, Pa. — A new line of refrigerating machines, designed for use with "Freon-12" on air conditioning work, has been announced by the Frick Co. here. Known as the "Eclipse" line, the compressors will be built in 3, 4, and 6-cylinder models, in capacities up to 60 tons.

Features of the new machines include safety cylinder heads, forced feed lubrication from a submerged oil pump, extra large oil screen, combination capacity control and automatic unloader, and outside type "Flexo-Seal" at the shaft.

The compressors are said to operate with quietness up to speeds of 900 r.p.m. They give larger capacities in less space and with less weight than older types of refrigerating machines. The standard drive is with V-belts, but engine-type squirrel-cage motors are installed directly on the shaft when desired.

The machines can be operated in parallel using the patented Frick oil pressure equalizing system. New specifications bulletins covering the units have been made available by the company.

Auburn Central Takes Over Automobile Co.

FORT WAYNE, Ind. — Under the reorganization plan of Auburn Automobile Co., just completed, all assets as well as liabilities of the company have been assumed by Auburn Central Mfg. Co. The parent company, together with Lycoming Mfg. Co. and Auburn Automobile Sales Corp., had been in reorganization proceedings for more than three years.

The new company is to turn over "from time to time to all those entitled to it" preferred stock shares of \$50 par value. All taxes and preferred claims, as well as unsecured claims under \$100, against the old company have been paid.

Wages At Westinghouse Rise 10% In April

EAST PITTSBURGH, Pa. — Employees of Westinghouse Electric & Mfg. Co. will receive a 10% increase in wages and salaries this month in accordance with the firm's compensation plan. Each month pay is adjusted in proportion to the average earnings of the preceding three months. The bonus in March was 9%.

Net profit of Westinghouse for the three months ended March 31 was \$5,627,263, after taxes and charges.

QUALITY ROAD



WELVE years ago, Temprite introduced an Instantaneous Water Cooler . . . its success was immediate.

Four years later, on the repeal of prohibition, Temprite put on the market an Instantaneous Beer Cooler . . . its success generated the same outstanding reception accorded to the Instantaneous Water Cooler.

Application of the Temprite principle of instantaneous liquid cooling to industrial processing in diversified industries logically followed.

Refrigeration Accessories, to augment and refine the Temprite system as time and conditions indicated the necessity, were developed, manufactured and added to the Temprite line.

Today, the Temprite array of models embraces many comprehensive refrigeration requirements which have been tested and proved in the crucible of experience and accepted by Refrigeration Engineers as preferred products.

Temprite has been content to develop surely, progressively but slowly, for its creed has been, and is, quality; in the building of quality it has escaped the penalty of mediocrity which spectacular growth so often inherits.

Each Temprite unit listed below has completed its pilgrimage along Quality Road.

WATER COOLING

WATER COOLERS (INSTANTANEOUS AND STORAGE TYPES)	BOTTLING PLANT WATER COOLING SYSTEM—PACKAGE TYPE
WALL AND PEDESTAL FOUNTAINS	SODA FOUNTAIN WATER COOLERS

BEER COOLING

DE LUXE BEER COOLING SYSTEM — PACKAGE TYPE
TEMPTANK BEER COOLER — STORAGE TYPE

MISCELLANEOUS COOLING

ACID COOLING UNITS • BAKERY WATER COOLING UNITS
OIL COOLING UNITS • PHOTO DEVELOPING WATER COOLING ASSEMBLY
REFRIGERANT TRANSFER SYSTEM • WINE COOLERS

REFRIGERATION ACCESSORIES

"OILRITE" OIL SEPARATORS • ADAPTOR BLOCKS
EQUALIZER TANKS

VALVES

SUCTION PRESSURE CONTROL VALVES
TWO TEMPERATURE VALVES
HI SIDE FLOAT VALVES
WATER REGULATING VALVES
AIR RELIEF VALVES WITH AIR FILTER

TEMPRITE PRODUCTS CORPORATION

Originators of Instantaneous



Liquid Cooling Devices

55 PIQUETTE AVE., DETROIT, MICHIGAN, U. S. A.

52 Hp. Commercial System Installed in Michigan State Hospital

Interconnected Multiple Compressor Set-Up Serves Battery of 18 Walk-In Coolers; Special Units Have Individual Machines

PONTIAC, Mich.—What is believed to be one of the largest commercial refrigeration systems in the state of Michigan using "Freon-12" has been installed in the Pontiac State Hospital here to handle perishable food stores held for use in this institution's expanded and modernized main kitchen.

A total of 52½ hp. of refrigeration equipment, using 2,000 pounds of "Freon-12" was installed to replace a 40 to 50-hp. ammonia circulating brine system. Cost of the new refrigeration equipment was approximately \$26,000.

THREE FIRMS COOPERATE

P. E. Daubenspeck, Inc., Pontiac commercial refrigeration dealer, was awarded the contract for the installation. Plans and specifications for the installation were prepared by J. E. Stephens Co., Detroit. Working drawings were prepared by Ray Fischer of J. George Fischer & Sons, Saginaw (Mich.) jobbing firm which supplied all of the refrigeration equipment for the job.

Brunner compressors were used throughout. Four 10-hp. machines which supply refrigeration for the battery of 18 Chrysler-Koppin walk-in coolers are interconnected on two systems, so that any machine can be operated on either system. All are equipped with oil separators.

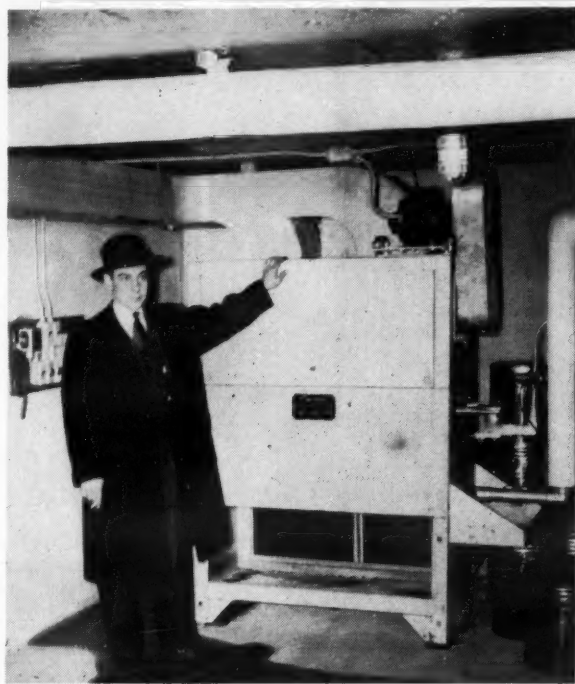
ICE CREAM EQUIPMENT

Two 2-hp. machines operate on a low-temperature system to handle a Taylor 5-gallon ice cream freezer with an extra hardening cabinet, ice cream dispensing cabinets, and salad pans. The McQuay quick-freeze cabinet located in the frozen food storage room also operates on this system.

A 7½-hp. machine operates on the ice field. This system is a flooded operation, requiring between 600 and 700 pounds of refrigerant. A large extra receiver was installed to facilitate pumping the unit down. The ice plant is complete with harvesting equipment and an ice storage room.

To handle remotely installed equipment not located near the main kitchen, such as the reach-in boxes and the milk cabinets in the two cafeterias, a ½-hp. unit and a ¼-hp. unit were installed.

The 12 walk-in coolers on the main floor are for beef chilling, pork chilling, cut meats, beef storage,



Eddie Daubenspeck of P. E. Daubenspeck, Inc., who personally supervised the installation, with a Carrier cold diffuser using 100% fresh air which ventilates a series of walk-in refrigerators containing fresh fruits, vegetables, and produce.

smoked meats and meat cutting, bakery goods, dairy products, chef's room for leftovers, garbage, fruits, and vegetables. The six cold storage rooms upstairs are designed for long-term storage of apples and other produce grown on the hospital's own property. These second-floor coolers are ventilated by means of a Carrier cold diffuser using 100% fresh air.

The walk-in coolers are held at temperatures varying from 28 to 50° F. All are equipped with room thermostats and solenoid piloted back pressure regulating valves. There are 23 Bush "Supreme" unit coolers in these walk-ins.

Other refrigeration equipment used in this installation included three Carrier 15Q2 cold diffusers, 60 Automatic Products expansion valves and 25 solenoid valves, and 23 White-Rodgers thermostats and seven pressure controls. The "Freon-12" used was supplied by Ansul Chemical Co. All fittings used were made by Mueller Brass, and all tubing was Wolverine Type K. Henry Valve Co. shut-off valves, dryers, and strainers were employed.

The actual job of installing the equipment presented a number of trying problems. In the first place, all joints had to be Sil-Fos brazed to satisfy specifications. Also, the in-

stitution could not be left without refrigeration facilities, even for a short period of time. So part of the new equipment had to be set up and in operation before the old equipment could be removed.

On top of all that, no stairway or access door between the basement compressor location and the walk-in coolers themselves was available, so to get from one to the other it was necessary for the workmen to walk approximately one block through a low-ceilinged steam tunnel in which temperatures often exceeded 100° F., up a flight of stairs, and then back on the ground level to the coolers.

Super-Cold Clinic Benefits Users of Counter Freezers

DALLAS, Tex.—A "delicious" rather than a "vicious" circle is what Frank A. Fallon started when, as manager of Super Cold Southwest Co., he began a series of factory clinics on the making and selling of ice cream and allied products from counter freezers.

With the ultimate purpose, of course, of selling more counter freezers, Mr. Fallon assembles users and prospective users, describes the operation of counter freezers, and mixes several batches of ice cream to help members perfect their technique and improve the product.

The clinics afford opportunity for the individual already producing ice cream to see his own base mix used by Mr. Fallon in demonstrations. This permits observation by factory experts and other users that may result in improvements, and the individual himself may detect errors when he sees another person using his mix.

Ice cream and sherbets in half a dozen flavors are produced during a clinic, with emphasis placed upon the important factor of flavor. Mr. Fallon stresses that indifferent consideration of this factor is a pitfall of first importance, especially if little care is taken to insure proper color.

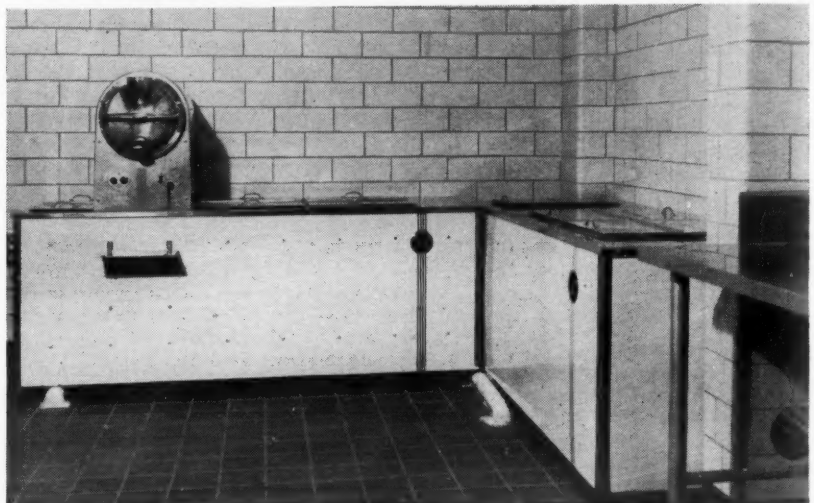
Following each demonstration, small cups of the finished product are distributed to the audience, with those present being urged to ask any questions to help bring out every detail of the mixing process.

Before and during the demonstrations Mr. Fallon discusses merchandising of ice cream. He believes that Dallas' present per capita consumption of 2 gallons could be increased to 5. He also cites the experience of a Fort Worth woman whose ice cream sales over a period of eight months reached a total of 52,000 pints.

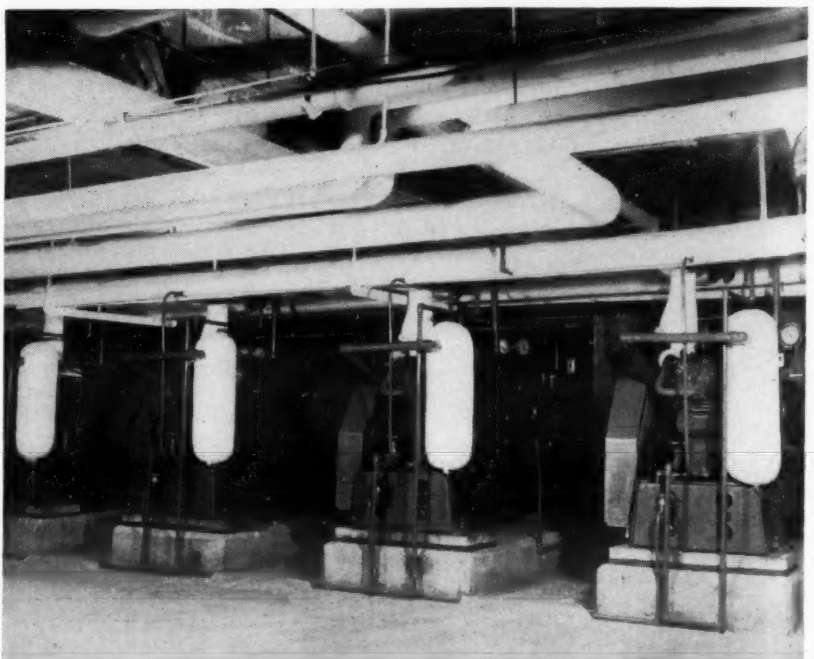
In addition to the clinics (100 attended the latest one) users receive aid and advice from the firm's salesmen.



Bush suspended fan coil units of the type shown above were used in many of the walk-in coolers because of the lack of available head room space. Known as the "supreme unit cooler," low sides of this type are recommended where good air distribution, at low velocities, is required.



This Taylor ice cream freezer and auxiliary hardening cabinet are powered by a 2-hp. Brunner compressor which also supplies refrigeration for salad pans used in the institution kitchens.



These four 10-hp. Brunner compressors are interconnected to main refrigerant headers and suction lines serving 18 walk-in refrigerators on the floor above. Under ordinary conditions only two of the machines are required to carry the normal load, so the extra units act as "stand-by" machines. The insulated housings on each machine are Acme oil traps.

Complete TUTHILL Junior ICE CREAM PLANT



New Profits for You!

Here's the extra-revenue line you've been looking for to supplement your present selling set-up. The new Tuthill automatic 1, 2½ and 5-gallon freezers and the sensational Tuthill Junior Ice Cream plant are packed with exclusive selling features—yet competitively priced for quick sales. There's still time to get in on the ground floor of this unusual profit opportunity.

DISTRIBUTORS! Write or wire for exclusive franchise facts today.

REFRIGERATION PRODUCTS DIVISION
TUTHILL PUMP COMPANY
935 EAST 95TH STREET • CHICAGO, ILLINOIS

BEST 4 USE

NO OTHER REFRIGERANT HAS SO MANY ADVANTAGES IN ITS FAVOR, SO IT'S THE BEST. ANSUL SO₂ DOES NOT BURN, DOES NOT EXPLODE. IT'S PUNISHING AS ITS OWN KILLING AGENT, MAKES THE SMALLEST EASY 2 DIS. IT IS THE MOST IDEAL REFRIGERANT FOR 4 USE.

ANSUL SULFONIC DIOLIDE
AGENTS 4 KINETIC'S "FREON-12"
ANSUL CHEMICAL COMPANY • MARINETTE, WISCONSIN

THERE IS AN ANSUL JOBBER NEAR YOU!

How To Stop Shrinkage & Burn Complaints In Poultry Cooling

**'Over-Coiling' and 3-Speed Blower Motor Switch
Big Factors In Getting Right Conditions**

NORTH HOLLYWOOD, Calif.—A forced draft walk-in cooler which keeps dressed poultry in perfect condition for as long as 10 days, without even any measurable shrinkage in the weight of the birds, is the pride and joy of V. J. Mahoney, local poultry producer.

Installed for him a little over two years ago by K. C. Moore Refrigeration Service, Van Nuys, Calif., this cooler has never been out of operation, has required no more attention than an adjustment to the seal, and has never varied from its intended temperature of 38° F.

Mr. Mahoney, who specializes in the sale of dressed poultry to restaurants and markets, maintains two sizeable storage refrigerators—the one just mentioned and an older one.

The older box is cooled by a 1-hp. Frigidaire unit which formerly operated on sulphur dioxide and was water cooled. It is insulated with 3 inches of sheet cork.

FLOOD BROUGHT CHANGE

In 1938 the San Fernando Valley was flooded, and Mr. Mahoney's poultry storage box—refrigerating machine and all—was under water for a week. Mr. Moore was called in to recondition the cooler, and after cleaning it up he suggested a change-over to methyl chloride refrigerant and air cooling. These suggestions were followed.

The newer cooler, which was installed right alongside the older box, has 4 inches of cork insulation, is hardwood-lined, and is cooled by a ¾-hp. Chieftain compressor and a Recold 557 forced draft coil with three-speed switch.

Cabinet of this forced draft cooler measures 7 x 7 feet, and has a capacity of about 500 birds of the average 3-lb. size.

'SECRET' OF SUCCESS

Secret of the unit's satisfactory operation, according to both Mr. Moore and Mr. Mahoney, is a large enough coil and the three-speed switch which prevents the poultry from sweating. Temperature is maintained at about 38° F., with relative humidity at 85%.

During warm, dry weather the single low speed—approximately 800 r.p.m.—is adequate, it is pointed out, but during the winter, when there is considerable moisture in the air, opening of the box creates a fog inside, and the two higher speeds—about 1,300 and 1,800 r.p.m.—are needed. At these more rapid speeds, usually only about half an hour's operation is required to pull the humidity down to normal. The coil itself, of course, never frosts, as it remains constantly at 34° F.

MEETS OLD OBJECTIONS

Because in the average ordinary refrigerator dressed poultry is burned so badly within 24 hours that it won't sell in the open market and even the more exclusive restaurants are critical of its appearance, many poultry men maintain that the only way to keep these birds satisfactorily is on ice. Mr. Mahoney's forced draft cooler, however, seems to have solved this storage problem.

On several tests made at various times, Mr. Mahoney has placed birds of equal weight and condition in his two coolers and left them there for three days. In each instance, those in the older box with the direct expansion coil were found to have lost considerable weight, while weight loss on the fowl stored in the newer cooler with the forced draft coil was negligible.

HOW COOLING NEEDS DIFFER

There is no difference in refrigeration needs for different types of fowl, but there is a difference in needs in relation to the way in which the fowl are dressed. Thus the usefulness of Mr. Mahoney's two types of coolers.

Straight scald-picked birds which go to the restaurant trade hold a lot of moisture because they are handled by a wet process. Consequently the direct expansion box is ideal for storing these birds, though there is less need for good appearance since they never remain in the cooler for more than two days.

Birds which go to markets where they must maintain their good appearance in the showcase are semi-dry picked. As a result, their moisture content is relatively low and the forced draft storage is most satisfactory.

Operating costs are a negligible factor in Mr. Mahoney's total expenses. In the winter his power costs for both units average about \$5 per month; in summer the costs average \$7.50. About 60% of the power is utilized by the older unit, the remainder by the newer one.

Nicholas Heads Dealer Firm In Jacksonville

JACKSONVILLE, Fla.—Ward I. Nicholas has been elected president of General Heating & Cooling Corp., General Electric distributor for northern Florida and southern Georgia, succeeding C. W. Sherman, former president, who has left the firm.

For several years Mr. Nicholas had been connected with General Electric distribution in Washington, D. C. and Boston, specializing in commercial refrigeration.

They Don't Get 'Burned Up'



Dressed poultry hangs in this walk-in storage room for 10 days at a time without any measurable shrinkage in weight, or without any trace of freezer burn, according to V. J. Mahoney of North Hollywood, Calif. Certain tricks in the installation and operation of the forced-draft cooling unit does the trick.

'Cold' Protects Film Chemical Supplies

ST. LOUIS—Protection of a \$10,000 inventory of film and photographic chemicals against the ravages of hot, moist weather is provided by a 5-ton York air conditioning system installed in the offices and warehouse of the Arel Photo Supply Co. here.

Extreme summer heat is said to cause clogging and discoloration of the film, making it worthless when delivered to the customer at the retail outlet. Super-speed films used in newspaper work and flash photography have been found to be particularly sensitive to heat.

It is also not advisable to allow developing chemicals, fixing acids, and coloring chemicals to be exposed to humid heat, because in certain instances, one day of high temperatures makes the chemicals worthless.

Arel Photo Co. solved this problem last year, by installing a 5-ton system to cool a 20 x 30 ft. storage space, in which a majority of the company's films and chemicals are kept. A constant temperature of 78° F. is maintained in this room. The room is ventilated by a 5,000 c.f.m. fan.

The 5-ton compressor also serves a smaller cooling system used for three offices, a showroom, and a waiting room.

The company has capitalized on the air conditioning system by placing a small label reading "refrigerated chemicals," or "refrigerated film" on every package sold. No loss of chemicals or film has been reported since the cooling system was installed.

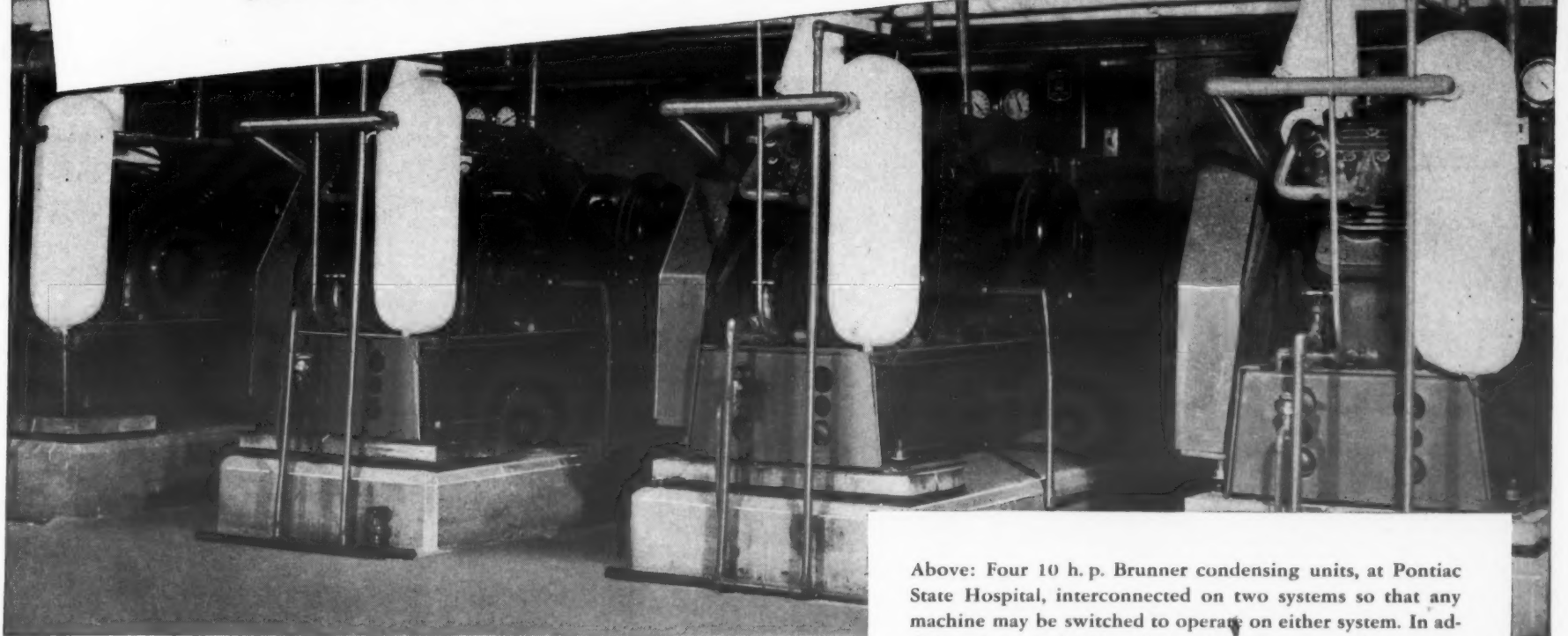
Kelvinator Host To R.S.E.S.

DALLAS, Tex.—Members of the Lone Star chapter of R.S.E.S. were guests of the Dallas Kelvinator organization recently at a meeting held in the branch plant here.

W. W. McLaren Dies

BIRMINGHAM, Ala.—W. W. McLaren, manager of the commercial sales department of Birmingham Electric Co., utility firm, died April 3 at his home.

The New Pontiac State Hospital selects Brunner Condensing Units for Efficient and Economical Refrigeration!



Above: Four 10 h. p. Brunner condensing units, at Pontiac State Hospital, interconnected on two systems so that any machine may be switched to operate on either system. In addition, the complete installation includes one-7½ h. p., two-2 h. p., one-½ h. p., and one-¼ h. p. Brunner condensing units.

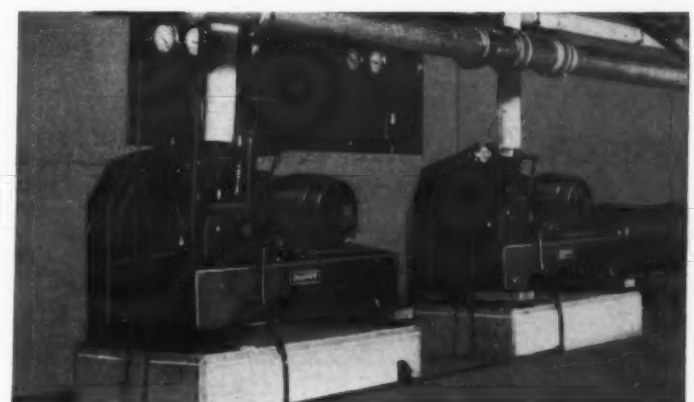
● In the new Pontiac State Hospital, Pontiac, Michigan, nine Brunner condensing units provide 52½ tons of refrigeration for 18 walk-in coolers, reach-in boxes, ice cream and milk cabinets, quick freezing cabinets, etc.; plus an ice-making plant with 2600 lbs. per day capacity and an ice storage room. The Pontiac State Hospital is but one of the many institutions and concerns

that have selected Brunner refrigeration for efficient, smooth running, economical performance. Brunner units are available in capacities from ¼ to 25 h. p., air and water cooled. Each unit carries the Underwriters' Laboratories approval and U. L. Seal. Write: Brunner Manufacturing Company, Utica, N. Y., U. S. A.



BRUNNER
REFRIGERATION

● SEND for the "inside story". Brunner superiority illustrated point by point.



Above: Brunner 2 h. p. units at Pontiac State Hospital. Quick freezing cabinet is connected to this system.

Dealers, Distributors Dress Up Windows & Showrooms For a New Season



Here's a fine example of a close tie-in with the national advertising theme of the manufacturer, in the window display designed by the Geo. W. Hubbard Hardware Co., Flint, Mich. dealer for Westinghouse refrigerators. The colonial theme is featured in Westinghouse refrigerator promotion this year, with models being designated as the "Betsy Ross," "Dolly Madison," etc. The window carries through with the mode in many ways.



Simple but impressive dignity and beauty are reflected in this window display, set up under the direction of Reed R. Smith, manager of the Wright Electric Co. of Ogden, Utah, dealer in Kelvinator refrigerators and Bendix home washers. Note effective fluorescent lighting within store.



A specially designed "exhibit area" to demonstrate Crosley refrigerators is part of the Arrow Electric Corp.'s establishment in Passaic, N. J. It is just one of the many novel ideas of Proprietor Al Levine. In a window display built around the "horse and buggy" theme, comparing old and new appliances, he put a 50-year-old buggy in the window, scattered appliances of the "Gay Nineties" era throughout the store.



The American Sales Co., Westinghouse distributor in Dayton, Ohio, uses booths on its showroom floor to create an effect that is both novel and patriotic. T. E. Goldenburg is manager of the Dayton operation.



The Moock Electric Supply Co., with headquarters in Canton, Ohio, recently celebrated the remodeling and expansion of its Cleveland showrooms. Prominent separate display space is given each Mayflower refrigerator model to be shown to the dealer trade.

IT'S MOISTURE - THE SUPERIOR DRYER-FILTER WILL FIX THAT

SHE'S UP TO 60 -

Superior DRYER-FILTERS

★Charged with DRI-X—the Super-Dehydrant—individually dehydrated by advanced methods; "factory-sealed" to assure delivery in original bone-dry condition ★ ★ ★ generous filtering elements at outlet end ★ ★ ★ for permanent and temporary drying ★ ★ ★ liquid diffuser assures positive distribution of refrigerant through DRI-X.

Ask your jobber for Catalog

SUPERIOR VALVE & FITTINGS CO.
1509 West Liberty Ave., Pittsburgh, Pa.
Export Dept.: 100 Varick St., New York

Tricky Floor Display 'Lights Up' Models By Price Groups

KANSAS CITY, Mo.—Visual merchandising of major appliances reaches a new high in the new appliance department of the George B. Peck Co., department store here which is campaigning to double its appliance turnover this year.

"Functional design" by Manager V. K. Gaskill serves to attract customers' attention immediately as they leave the elevator on the fourth floor, distinctly show the four types of appliances handled (refrigerators, ranges, washers, and radios), literally spotlight price groups of appliances when customers reveal how much they intend to spend, show customers how the appliances operate, and make prospects as comfortable as possible to facilitate selling.

Measuring 60 x 35 feet, the department has a dusty pink background, with a cream band around the upper molding to contrast silhouette lettering which locates each appliance.

The floor is kept clear of all merchandise except the "big four" appliances. Each row of these is elevated so that customers can see all models from one position.

If a customer asks to see models in a certain price range, the salesman merely flips a switch which illuminates all models in that price line, while the remainder are dimmed. This novelty has brought favorable comment from every customer sold.

Every appliance on the floor is connected to hidden electrical outlets to permit demonstration. One refrigerator of each size and price is kept in continuous operation, which creates a favorable effect when customers open the door and find the interior cold. Because downtown Kansas City is served with direct current, the department installed a converter to change it to alternating current for the appliances.

At the far end of the department is a small space containing four comfortable chairs, smoking stands, and a table around which prospects and salesmen sit while discussing appliances.

12 TO 71 CU. FT.

**MOST COMPLETE
'REACH-IN' LINE
ON THE MARKET!**

Here's the widest selection of sizes and styles the industry affords—a model for every need. Distinguished by superb styling, fine construction and outstanding value.



Model 120 (above) has 12 cu. ft. capacity—the newest member of the "Midwest 'Reach-in'" family.

Model 700 (right) another new model has 71.5 cu. ft. capacity. In between is a full range of sizes and equipment. Write for full details now.



Midwest MFG. COMPANY
Galesburg, Ill., U.S.A.
Export Division, Merchandise Mart, Chicago

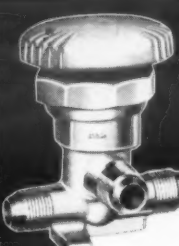
**HERE'S THE KEY TO
BIGGER PROFITS
ASSURED
REPEAT BUSINESS**

Write today for this free catalog. It shows how A-S-E Froz-n-Food UNIT Lockers can increase your income easily and quickly. First profits are fast—repeat orders virtually automatic.

A-S-E Froz-n-Food UNIT Lockers are designed to meet every refrigerated locker plant requirement. Installation is easy and quick. There is no unprofitable servicing. Remember, the catalog is yours for the asking. Write us today.

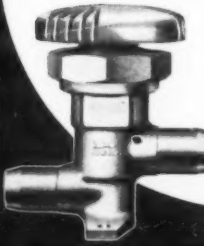
**SOLD ONLY THROUGH DEALERS
ALL-STEEL-EQUIP COMPANY**

Incorporated
104 KENSINGTON AVE. AURORA, ILLINOIS



**TRIPLE-SEAL
Diaphragm
VALVES**

Valves are furnished in two-way, three-way, and angle type—flared or solder type ends—and in complete range of all necessary sizes.



● The service life of the Triple Seal Diaphragm Valve is greatly prolonged, owing to its method of diaphragm operation. The diaphragm never travels below its normal center, thus eliminating oil can or "snap" action and consequent fracture.

The valve has positive sealing at three essential points.

A single turn only is necessary to open or close it. Write for literature.

MUELLER BRASS CO.
PORT HURON, MICHIGAN
ORDER FROM YOUR JOBBER

Fair and Cooler

By Henry Knowlton

'Mercury' Rises 9.4% As Employees Share Profits

Employees of the Carrier factory at Syracuse, N. Y. were happy last month, watching the temperature rise in large thermometers painted on posters located at strategic points around the plant. Everyone from the "front office" crowd, to men parking cars on the company lot cheered when the "mercury" rose to 9.4%.

This percentage represented a monthly salary bonus of \$9.40 on every \$100 of monthly pay, under a plan worked out by James A. Bentley, vice president in charge of finance. Inaugurated in December, 1939, first monthly bonus amounted to only three-tenths of 1%, but increased steadily through 1940.

With the largest backlog of orders in company history, Carrier employees are looking forward to more fat bonus checks this year. Salaries are adjusted monthly on a percentage basis, determined by dividing 20% of the previous year's average monthly net income or loss, by the total base salaries of all employees for the current month.

'Pitch and Putt' For Pleasure and Practice

Another venture in employee relations is the "pitch and putt" golf course, which immediately adjoins the Chicago plant of the Ilg Electric Ventilating Co. Not to be confused with the "miniature" golf courses of other days, this is a "compressed" version of a full sized course.

Nine holes, totaling 511 yards, have been laid out for pitching and putting. Par is 25.

Employees and guests using the "Tigraire" golf course are presented with a supply of standard golf balls and a No. 7 iron. The player drives off a floor mat at each tee, and plays

his other approach shots (when necessary) with the same club.

At the greens, putters are available to finish out the holes. Each green is trapped and designed with rolling slopes to test the skill of the most expert golfer. Shrubbery and trees form hazards on the fairways.

Needless to say, Ilg employees like the course. They use it before work, after work, and also during the noon hour.

Tulsa, Oklahoma Gets One More

Two years ago it seemed as if all of the really big air conditioning installations that could be made had been completed in Tulsa, Okla. Block after block of completely air cooled buildings in the downtown section, topped by a forest of cooling towers, gave evidence of the activity of air conditioning firms.

But the job of cooling all of the office buildings in Tulsa is not done. Al Natkin, manager of the Tulsa office of Natkin & Co. (Kansas City) recently closed the contract for a 150-ton installation in the Sinclair Oil Building. The system will be 100% Westinghouse, including compressors, coils, water coolers, and evaporative condensers.

Another large building installation recently completed by the Natkin organization is the final 175 tons of cooling installed in the Ambassador Building at St. Louis. The total of 375 tons of Westinghouse equipment now makes the Ambassador the largest completely air conditioned office building in St. Louis.

Sam Shure, Natkin vice president in charge of the St. Louis office reports that "things have quieted down in the past two weeks—in spite of defense work." According to Sam the Natkin engineers have been knocking off work at 3:30 a.m. every dawning, instead of working until 4:00 o'clock—as they have been doing for some months.

pipng, steam specialties, refrigeration compressors, evaporative condensers, direct-expansion cooling coils, insulation, and refrigerant.

Evaporative condensers save 45% of the 160 gallons of water per minute ordinarily used in cooling. Filters remove dust and pollen from the air. With the air thus filtered, the company saves materially by maintaining longer periods before cleaning the upholstery.

A separate cooling system air conditions the top floor of the building built as a modern penthouse apartment for display purposes. Thus, the penthouse unit operates independently of the system in the rest of the building.

In summer the controls maintain an 80° F. temperature in weather having a dry-bulb temperature not higher than 95° outside coincident with a wet-bulb temperature not higher than 75°. A dehumidifier spray brings an average relative humidity not exceeding 50%.

Suspended Conditioners Cool Tourist Court Office, Cabins

TOPEKA, Kan.—Visitors at the Ace Motor Court, operated by Leo J. Horne, are kept comfortable by suspended Fedders unit coolers, using 56° well water as the cooling medium. Last year Mr. Horne tried one unit in his office, and another in one of the cabins.

From the results obtained, Mr. Horne has decided to equip more cabins with unit coolers during the current season. The Fedders units used in the installation were sold by the Forslund Pump & Machinery Co. of Kansas City.

Correction

CHICAGO—Fourteen window ventilators used by the Calumet Ship Yards on the river tug Ashland were sold by the air conditioning department of Fairbanks, Morse & Co. and not the Air Comfort Corp. as reported in the April 9 issue of AIR CONDITIONING & REFRIGERATION NEWS. The sale was made by the Chicago office of Fairbanks, Morse & Co. to James Rogan, manager of the Calumet Ship Yards.

J. W. Bostwick, manager of the air conditioning division of Fairbanks, Morse & Co. states that the company spent considerable time designing a special unit for this type of work, and running tests to convince the river tugboat operators to install window ventilators.

Mr. Bostwick points out that Fairbanks, Morse & Co. has done the pioneering in a new field for window ventilators, as the units have been found to be very valuable in keeping dirt and drafts out of the living quarters on the tugs, which are often away from the docks for months at a time.

John Severance Joins Electric Sales Staff

FLORENCE, S. C.—John Severance has joined the sales staff of Electric Sales & Supply, local General Electric dealer.

Straight Line Production Methods Used To Build Room Coolers In G-E Plant



Adopting methods of the automobile industry, General Electric has devised straight line production with a continuous assembly line for its 1941 room cooler models. John P. Rainbault (left), manager, and A. W. Wennerstrom, in charge of manufacturing, of air conditioning and commercial refrigeration, watch as H. L. Andrews, vice president, snips the ribbon to "open officially" the assembly line after production of the 400th unit.

Cannon Electric Adds Kelvinator Line

SUMTER, S. C.—Cannon Electric Co., local appliance dealership, has added the Kelvinator line.

Candler Takes on Gibson Refrigerators

CANDLER, N. C.—Candler Furniture Co. has taken on the Gibson line of refrigerators here.

Moisture Control Keeps Furniture Store's Stock In Good Condition

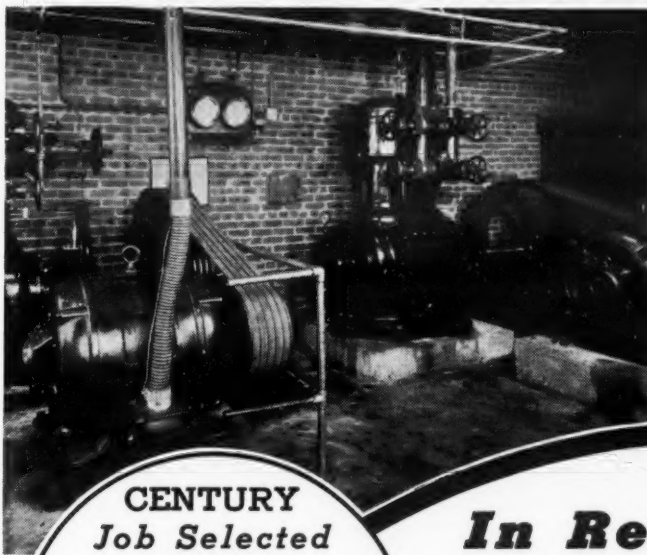
BRADDOCK, Pa.—More furniture sales, better employee health, and keeping all stock in good condition, were among the reasons why a \$30,000 year-around air conditioning system was installed in the new six-story home of the Ohringer Furniture Co. here.

The store employs 145 persons in the building, and maintains healthful conditions with 10,750 c.f.m. of outside air provided for ventilation.

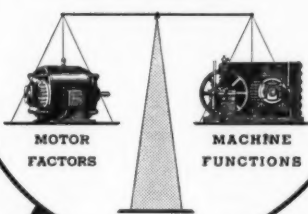
Complete installation is a "split-system" with direct radiation in some parts and forced-air heating in other parts. Very important in its function in this furniture store, the humidifier controls the moisture content so that the relative humidity does not drop too low and cause the furniture to begin drying out and rippling. Thus, the furniture stays in much better condition.

Engineers designed the ventilation system so that in the spring and fall, when neither the heating nor the cooling is necessary, 100% outside air may enter and maintain perfect atmospheric conditions in the store proper. In summer the air conditioning requires 83 tons of refrigeration.

The system includes a complete, low-pressure heating boiler, automatic stoker with controls; a complete ventilating system including ductwork, grilles, louvers, fans; and a complete winter air conditioning system in conjunction with the ventilating system, including heating coils, humidifying apparatus, unit heater, direct radiation, steam



CENTURY Job Selected MOTORS



In Refrigeration and Air Conditioning
It's Helpful and Profitable to Rely on

CENTURY Job Selected MOTORS

When you buy or specify a Century Job Selected Motor for any application in the fields of refrigeration or air conditioning, you're assured that the motor accurately meets the demands of its job and the surrounding conditions.

For instance, Century Type SCN, low starting current, normal starting torque, squirrel cage motors are designed especially for use where lower starting current is desirable — for blowers, unloaded compressors, cooling towers, centrifugal pumps, etc.

Century Type SCH, high starting torque, low starting current motors are especially suitable for refrigeration compressors, reciprocating pumps that start against pressure, and similar equipment where heavy starting loads are encountered.

Century Job Selected Motors balance the job; are a definite aid to sales and contribute much to the efficient operation of your equipment or installation. Consult your nearest Century Motor Specialist today on Job Selected Motors.

CENTURY ELECTRIC COMPANY

1806 Pine St., St. Louis, Missouri

Offices and Stock Points in Principal Cities



One of the Largest Exclusive Motor Manufacturers in the World

SERVEL Silver Fleet



Smooth and silent as a sailboat, Servel's "Silver Fleet" refrigerating machines offer you a standard of operating efficiency that is 3 to 5 years ahead of the field. Ask for the new 72-page catalog. Servel, Inc., Electric Refrigeration and Air Conditioning Division, Evansville, Ind.

COMMERCIAL REFRIGERATING MACHINES

AIR CONDITIONING & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office:
Established 1926 and registered as
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F. M. COCKRELL, Founder

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APRIL 23, 1941

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Why Cut Prices At a Time Like This?

BELIEVE it or not, reports are drifting in to the offices of AIR CONDITIONING & REFRIGERATION NEWS that there is some price-cutting going on out in the field currently. Following up leads, our own reporters have discovered isolated instances of such crack-brained activity among:

- (1) Parts jobbers
- (2) Service men
- (3) Appliance dealers

The prevalence of such instances can be roughly allocated among the three groups in the order named. For once, wholesale throat-cutting amongst appliance dealers is rarely found.

Service men, in bidding on annual contracts, are still thinking in terms of "keeping their shop going." Such thinking, surely, won't prevail more than a few months longer. By that time, the competition for mechanics will become so all-fired keen that service men will likely be able to "pick and choose" from among the jobs offered them.

As for jobbers slitting one another up the back, there are two explanations. One is that some of them are continuing to make "whispered discounts" simply out of force-of-habit.

The other explanation is that a few jobbers have stocked up to the rafters to hedge against rising prices, and as a result have altogether too much working capital (plus borrowed capital, in some cases!) tied up in inventory. A few such jobbers have been indulging in a bit of quiet unloading.

Whereas the NEWS has been advocating that jobbers anticipate their actual requirements in advance, placing orders accordingly, there is naturally a safe limit beyond which no sound business man should go in tying up his capital in inventory.

Every jobber and every dealer should be sufficiently liquid that a sudden shock—or a temporary business lull of, say, 90 days' duration—would not put him out of business.

So, while the time for hand-to-mouth buying is definitely past, the need for establishing financial safe-

guards against sudden business shocks is fully as timely. We are entering a period of vast uncertainties. And the first law of business, like the first law of life, is *survival*.

Put briefly, jobbers and dealers will be called on to be business managers during the coming war period much more than they have been in the past. The strain on the head of the business is going to be greater, his capacity for making hairline decisions will become more important, and more and more he will be faced with problems the solution of which will call for a high order of creative power.

Now is the time, then, for all good jobbers and dealers to straighten up their houses with relation to price cutting. There will never be a better opportunity to put the business on a sound basis. Look:

The supply of parts and supplies available now is limited; what's more said supply may become less available as time goes on. Every jobber and dealer in the industry should be able to sell everything he can wheedle out of manufacturers at a fair price. There is no rhyme nor reason to cut prices at a time when the seller is in the driver's seat.

It's a time not only to put the industry on a sound basis with regard to price, but it's a time to acquire a bit of cash reserve as a "cushion" against emergencies. If business drops off suddenly, most of us will need every dime we can lay hands on in order to weather the storm.

So, from every angle—sound business practices, nest egg storage, and that old-but-sometimes-forgotten idea of profits—the idea of cutting prices to beat a competitor out of a sale should be buried alongside the moustache cup, the stovepipe hat, and the hitching post. It simply does not belong in the present era.

QUOTED

Record Employment for January

THE usual decline in factory employment during January was sharply modified by defense requirements, and the adjusted index rose to a record 118.0 from 116.6 in December. Nonagricultural employment in January totaled 36,343,000 compared with 37,299,000 in December, the decline being due mainly to the seasonal drop in retail trade.

This represents the highest employment figure for any January on record. It is almost two million above January 1940 and more than a million above January 1929.

Such unprecedented employment was fully reflected in the January index of income payments which advanced on a seasonally adjusted basis from 95.6 in December to 96.3 in January, the highest point since February 1930.

Owing to the usual drop in dividend payments and the seasonal decline in trade employment the January dollar volume of income payments was smaller than in December.—"Domestic Commerce."

Selling and More Selling

WOMEN crowded into a New York store the other day to buy expensive Easter millinery—alleged hats ranging in price from \$35 to \$50.

If a woman cannot buy a \$50 hat she will not necessarily stay away from church on Easter morning or fail to join in the Easter parade; she could struggle along with a hat costing \$25 or even \$5. But if she can spare the fifty she is most likely going to have the \$50 hat.

The same reasoning applies to a host of things. When people have the money they are going to buy luxury items. They enjoy spreading themselves once in a while—especially after a long dry spell.

Herein is the reason for a most intriguing merchandising development that is now unfolding. Many more people now have money to spend than has been the case for a long time. Some who were earning nothing

They'll Do It Every Time By Jimmie Hatlo



at all a year or so back are now regularly employed at wages that, in any other part of the world, would be regarded as fantastically high. Others who were getting by after a fashion are now prospering on a basis ranging from fair to excellent. When people have money they are going to buy goods that to them are luxuries. And this is what they are doing right now.

There may be some sentimental persons who would argue that this sort of thing under present circumstances is incongruous and even indecent. Should not people be encouraged to save their money so as to have a backlog against the inevitable post-war letdown? Not at all; they should be encouraged to spend it—not prodigally or wastefully, but liberally. Selling—selling done right now and in the months to come—is the power that is going to save the nation from bankruptcy after it has wound up its business as munitions maker extraordinary to the civilized portion of the world.

All of which leads up to this climax: Merchandisers of all descriptions should be realistic. They should know their markets and the newly created buying desires and habits of their customers and prospects. Instead of being held back by fears of what may happen when the United States reaches the zenith of the wartime spending they should be aggressive and fearless in their advertising and promotion.

Selling and more selling is the thing that is going to get us out of this muddle.—"Printers' Ink" for April 11, 1941.

LETTERS

EGYPT'S TRADE MARK LAW AFFECTS U. S. CONCERNS

Lysaght & Co.
33, Sharia El Malika Farida
Cairo, Egypt

Editor:

We think that you may perhaps care to publish in your journal, AIR CONDITIONING & REFRIGERATION NEWS, the information given in the enclosed leaflet concerning an official announcement which includes a warning that traders wrongfully using upon goods in Egypt the words "Registered Trade Mark" in connection with a trade mark that has not been registered under the new Egyptian Trade Marks Law will be prosecuted.

Many United States manufacturers and exporters of goods to this country are unwittingly contravening the new Egyptian law in this respect and as indicated in the enclosed leaflet, the law prescribes a heavy penalty for this offense.

LYSAGHT & CO.

TRADE MARKS IN EGYPT

23rd July, 1940

We beg to advise you that the Comptroller has, by a notice published today, drawn the attention of the public to certain provisions of the new Trade Marks Law and to the fact that legal proceedings will be instituted against persons wrongfully using the term "Registered Trade Mark" in connection with a trade mark that has not been registered under the Trade Marks Law of 1939.

The following is a summarized version of the official notice. The passages in the Act and Rules which are referred to by reference letters in the official notice are, where necessary, quoted below.

Trade Marks deposited with the Bureau of the Mixed Court of Appeal (this will include also those marks previously deposited in the Consular Courts) will not be regarded

as legal registrations and will not enjoy the rights and privileges of registered trade marks, unless they are registered under the new Trade Marks Law of 1939.

The term "Registered Trade Mark" must not be used in this country except in connection with trade marks registered in Egypt under the new Trade Marks Law of 1939. Registration effected abroad will not justify the use of such a term nor will the fact that a trade mark has already been deposited with the Bureau of the Mixed Court of Appeal be a legal defense of such use. Section 34 of the law prescribes a penalty of imprisonment for a term not exceeding one year and a fine not exceeding one hundred Egyptian pounds or one of these penalties for wrongfully indicating on trade marks or on business papers that a trade mark has been registered.

The official notice requests that traders, manufacturers, and importers should abstain from offering for sale goods bearing trade marks wrongfully indicating that such trade marks are registered and intimates that instructions have been given to the inspectors of the Department of Commercial Legislation and Industrial Property to institute legal proceedings against those offending the law.

PROHIBITED MARKS—UNREGISTERED MARKS

Attention is also drawn to the fact that under Art. 34, the following are liable to the penalty of imprisonment and/or fine mentioned above:

(1) Persons committing a breach of the provisions of Arts. 27 and 32.

Art. 27. Any trade description affixed either directly to goods or on or inside shops, depots, signboards, packings, invoices, note paper, publicity matter, etc., wherein or whereby such goods are offered to the public, must correspond completely and absolutely with the true facts.

Art. 32. When the quantity, measure, gauge, weight, origin, or component parts of a product constitute an element of its value, a decree may prohibit the importation, sale, offer for sale or exhibition of such products unless one or more of the above details are indicated thereon. The mode in which such indications shall appear or, in default, the procedure to remedy the omission of such details, will be laid down by order. Those indications must be written in Arabic.

(2) Persons using an unregistered mark of the nature referred to in Sub-Sections b, c, d, f, i, and j of Art. 5.

Art. 5. (b) Any phrase, design, or sign of an immoral character or contrary to public order.

(c) public crests, flags, or other emblems of the state or of countries according reciprocal treatment, or any imitation of a heraldic device;

(d) official stamps or hall marks of such countries in cases where the marks are intended to be used to designate goods similar to those to which such stamps or hall marks apply;

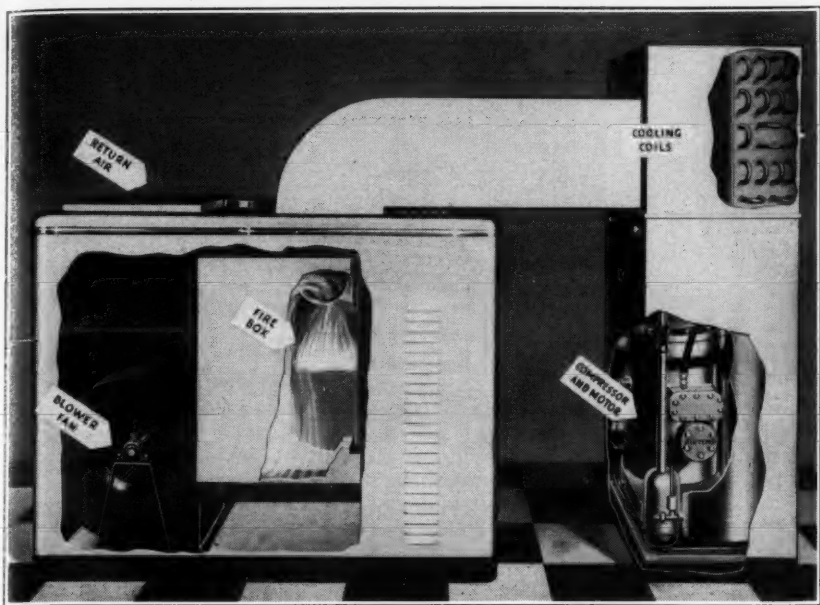
(f) marks which are identical with, or similar to, symbols of the Red Cross or Red Crescent or any other emblem of the same character as well as all imitations of such symbols;

(i) any statement that the goods have received honours or awards to which they are not entitled;

(j) marks likely to deceive the public or containing a false indication as to the origin or quality of the goods on which the mark is being used, or marks which contain the name of a fictitious firm, or which are imitated or counterfeit.

The Controller intimates in the announcement that it is known that there are still on the Egyptian market goods bearing marks prohibited by the law such as those referred to under paragraphs c, f, and j above and that such contraventions of the law should cease at once.

Airtemp Cooler Connects To Furnace For Year-Around Air Conditioning



This cutaway view shows how an Airtemp commercial cooler, with coils in vertical position and blower removed, can be installed in conjunction with a forced air heating system to provide year-around conditioning.

DAYTON, Ohio—"A winter air conditioning installation now represents approximately two-thirds of the cost of year-around air conditioning," says D. W. Russell, president of Airtemp. "By using the same ductwork installed for forced warm air heating, with the addition of the Airtemp packaged summer air conditioning unit, even the most modest homes can now have year-around systems."

The cooling unit sold by Airtemp for installation in connection with heating systems is the same as those

used in commercial air conditioning installations, except that the blower is eliminated, and the cooling coils placed in a vertical position. The furnace blower is used to circulate air through the cooling coils, and a minimum of additional ductwork is required to connect the furnace with the cooling unit.

The cooling unit can be added in a 20-year, F.H.A. home mortgage at a cost of as little as \$2.69 a month extra—something less than 10 cents a day, the Airtemp president pointed out.

Cooling, Heating, Lighting Engineers Join In Discussions of Conditioning

BUFFALO—Nearly 150 members of the Air Conditioning Council of Western New York, the Western New York chapter of American Society of Heating & Ventilating Engineers, and the Western New York section of Illuminating Engineering Society gathered in the University Club here recently to hear discussions of "The Relationship of Lighting and Air Conditioning" and "Odor Control in Air Conditioning."

Richard H. Mollenberg, president of the Air Conditioning Council, presided. Walter P. Davis, executive secretary of the council, reported on the status of two legislative measures of interest to air conditioning men. He said a bill in Albany calling for the licensing of contractors "apparently has been taken care of for this session."

He also announced that progress is being made by the council in its efforts to kill the stationary engineers bill in Buffalo. The council has been cooperating with the Buffalo chamber of commerce in preparing an amendment to this measure.

First speaker was Howard M. Sharp, manager of the lighting bureau of the Buffalo Niagara Electric Corp., national secretary of I.E.S. and chairman of a joint committee of that society and A.S.H.V.E. which is studying the relationship between light and air conditioning.

In recent years, Mr. Sharp said, a basic antagonism has sprung up between the lighting and air conditioning interests because of conflicting commercial features. This condition should not be, he said, and must be corrected in the interests of both lines of activity. For this reason the joint committee to study the problem was set up by the societies, he declared.

Showing the close alliance of light and heat, Mr. Sharp said both are perceived by the individual in much the same way. He said the national

committee has a great education job to do. "We can't look upon light merely as a source of heat gain," he said, "as it only accounts for from 14 to 24% of the total load."

Mr. Sharp said cool lighting is cool only relatively. However, fluorescent lighting does produce less heat, he added. Both air conditioning and lighting can do better jobs in their respective fields by recognizing each other and working along on a cooperative basis, he advised.

Second speaker, Henry Sleik, vice president of W. B. Connor Engineering Corp. of New York City, said that "odor control is a vital function of air conditioning and contributes to the effectiveness of other functions of air conditioning."

The removal of odors in area of human occupancy and assembly is one of the biggest jobs confronting the industry today. Sources of odor are almost without number and as yet no device has been developed which will record the detection of odors, he said. Even the air conditioning system itself may be an odor source.

He then described the various methods of odor removal. Introduction of chemical agents to remove odor is used to some extent, but this method produces difficulties, he declared.

Another speaker was L. E. Spring, of the state education department, who appealed to engineers to assist the state in its teacher training program. New vocational schools are springing up throughout the state, he said, and will need teachers.

C-H Moves Office

INDIANAPOLIS—The local sales office of Cutler-Hammer, Inc. has been moved to 241 N. Pennsylvania St., Room 316. G. E. Hunt is sales engineer in charge of this office.



SOLVE YOUR CONTROL PROBLEMS

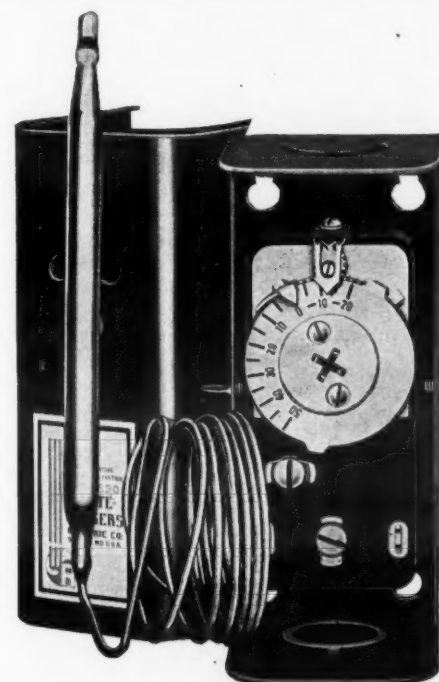
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Specifications of Air Cooled Ambulances Outlined

CINCINNATI — Air conditioned ambulances, using ice as the refrigerating medium, are being produced by the Sayers & Scovill Co. here. Public reaction to the equipment of this type, as reported by Sparkman-Brand, Inc., of Dallas, Tex., has been found to be favorable, and was discussed recently in AIR CONDITIONING & REFRIGERATION NEWS.

Specifications of equipment used by Sayers & Scovill Co. have been outlined by Willard C. Hess, chief engineer of the company, who reports that "air conditioned ambulances produced by our company have been enthusiastically received, and we predict even greater demands for the future."

The average cubical contents of the patient's area in the ambulances is 135 cu. ft., and the space has a glass area of 25.8 sq. ft. The roof is insulated with saturated felt paper of $\frac{3}{4}$ -inch thickness. Body insulation consists of spray-on asphalt cork of the same thickness under the floor,

and side walls are insulated with saturated paper and rock wool.

There is an ice bunker of 180 lbs. capacity, insulated with 1-inch corkboard. The cooling coil housing is insulated in a like manner.

The pump used to circulate 6 to 8 g.p.m. of cold water through the coils is a vertical gusher type, powered by a $\frac{1}{4}$ -hp. motor. Directly coupled to the pump, this motor turns up 2,200 r.p.m. when operating on 6-volt current.

The system provides complete recirculation of air every 3 minutes, and water enters the cooling coil at approximately 34° F. Use of a copper coil 7 x 7 x 24 inches is said to make a 15° temperature reduction possible, when temperature is 100° F.

Air is distributed in the ambulance interior by two outlet grille arrangements; one located at the top and the other at the side, equipped with four-way adjustable finned diffusers.

The air filter employed in the system measures 4 x 15 inches, and is

of the replaceable mesh type.

Air is handled by a Torrington wheel, $3\frac{3}{4}$ inches in diameter by 4 inches long, coupled directly to a 6-volt motor operating at 2,200 r.p.m.

The heat load on the ambulance is estimated at 4,800 B.t.u. under normal conditions, and may go up to 12,000 B.t.u., due to sun load, color of ambulance, number of occupants, outside temperature, and car speed. It has been found that about 80 lbs. of ice must be melted, absorbing 11,520 B.t.u. for the initial pull down, which requires about one hour.

With the car in motion when the outside temperature is 100° F. the pump will operate about 39 minutes out of every hour. Air infiltration at 50 miles per hour has been found to be from 20 to 30%.

The battery used to operate the two motors in the air conditioning system is the regular 125-amp. unit, with a charge rate of 28 amperes. An auxiliary battery charger is supplied with each car.

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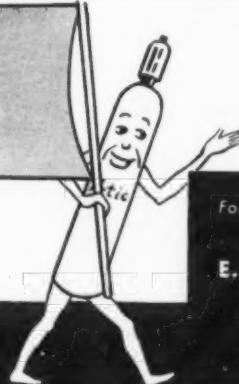
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Second-Floor Location of Equipment Reduces Cost In Theater System

Basementless Buildings Are Designed To Accommodate Air Cooling Installations

COLUMBUS, Ohio—Air conditioning systems incorporated into the basic design of two Columbus theaters, with all equipment placed in unused second floor space, are claimed to effect new economies in first cost and operating cost.

Complete year-around systems, using well water as the cooling medium, were installed in the Beechwood and Boulevard theaters at a cost of approximately \$8,500 for each of the 900-seat houses.

The air conditioning systems were

installed by F. & Y.—a firm which specializes in the construction of complete theaters. First installation of a second-floor air conditioning system was in the Gaiety at Erlanger, Ky., in 1938. Since that time the company has built some 16 basementless, air cooled theaters.

For maximum structural efficiency, theaters are usually built with the front elevation as high as the auditorium. Usually the second floor space over the lobby and foyer is unfinished except for the projection booth.

By placing the conditioning and other mechanical equipment in this area, it is unnecessary to have any basement excavation, and approximately 18 feet of ductwork is eliminated. The design also saves the space usually required for ductwork running from the basement to the auditorium ceiling.

Furthermore, all controls, power, and switches are confined to a single location near the power service required for the marquee and projection room. Major saving in wiring results.

WELL WATER SYSTEMS

Both theaters use well water as a cooling medium. The Boulevard well drops 165 feet and dumps circulated water directly into the storm sewer, while the Beechwood has a 185-foot well, and is provided with a return well for disposal of water. Water temperature is 54° F.

Well water is supplied by Fairbanks-Morse centrifugal pumps handling 180 g.p.m. These units are powered by a 7½-hp. motor driving a 3-stage bronze impeller mounted on a stainless steel shaft. Total dead head measures 100 feet.

Fresh air intake louvers in the outside wall are 5 feet wide by 6 feet high. Control of air volume at this point is manual, but the systems are designed on the basis of 25 c.f.m. per person. The air is cleaned by passing through a bank of 20 edge seal filters.

The Beechwood coil installation is a 10-ft. McQuay unit of continuous tube construction. The coil has continuous plate aluminum fins, which are attached to the tinned copper tubes. Each fin is equipped with a spun collar, used for spacing. The coil has 32 tubes ¾ inch in size and 10 rows deep, and the overall width is 50 inches.

TUBES KEPT CLEAN

Because of sulphur in the cooling water, it has been estimated that the tubes must be cleaned every six months for maximum operating efficiency. The coil is fitted with non-ferrous removable plugs at both ends of the tubes, to provide easy access for internal cleaning, and to allow quick inspection of each individual tube. The plugged tube ends protrude an inch and a half into the control room.

The fans installed in both theaters are Garden City No. 7½, vertical discharge, handling 18,000 c.f.m. They are driven by 5-hp. motors equipped with overload protection, and mounted on Firestone vibration dampeners.

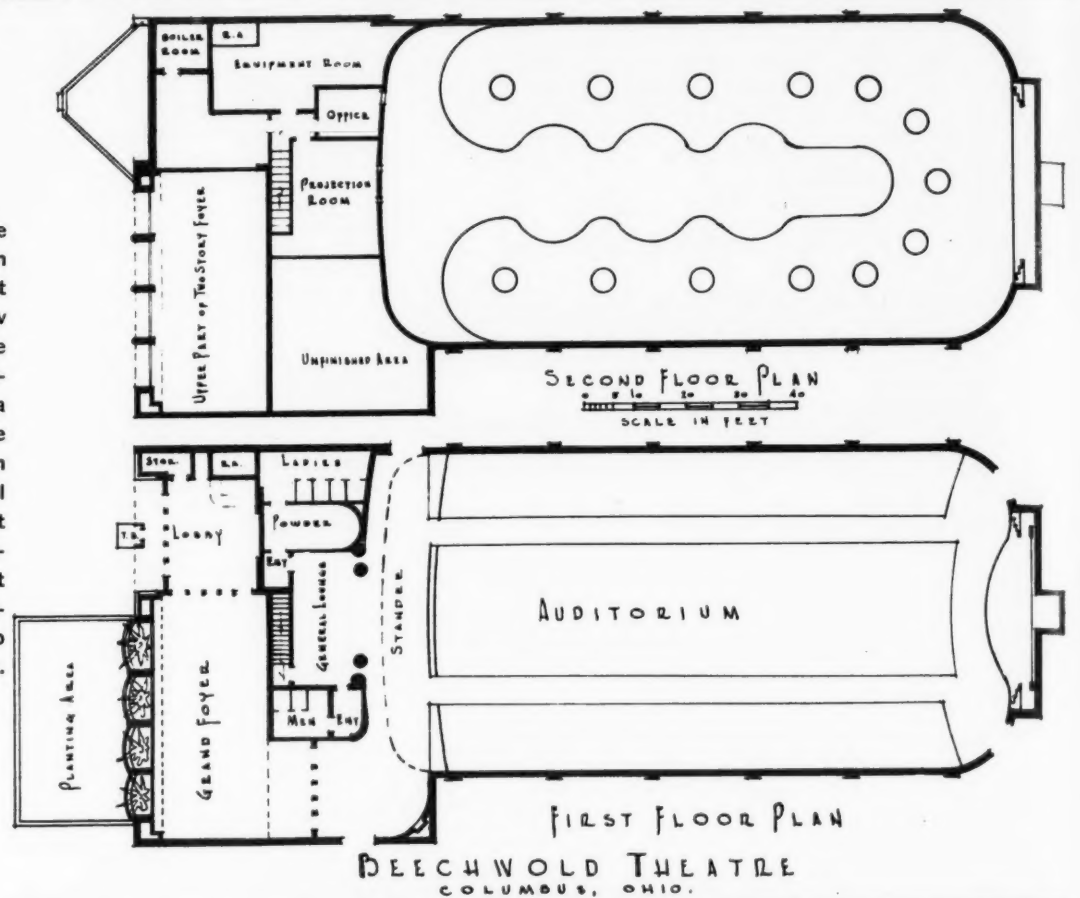
★★★★★★★★



Mills Condensing Units
By Mills Novelty Company
4100 Fullerton Ave., Chicago, Ill.

★★★★★★★★

Floor plan of the Beechwood Theater in Columbus, Ohio at right, shows how provision was made for all air conditioning equipment in a special room on the second floor. Location of all mechanical units at this point eliminates the necessity of a basement and shortens ductwork necessary to reach the auditorium.



Overall equipment room sizes are only 8 x 8 x 14 feet at the Boulevard and 8 x 14 x 15 feet at the Beechwood. Additional space is used in the latter theater to house a small auxiliary system which handles lobby, foyer, restrooms, offices, and projection booths.

The main trunk ducts serving the theaters is lined with J-M Acoustic cemented firmly to the sides. Heavy canvas connections are used to reduce transmission of vibration from the equipment to the sheet metal system. All trunk elbows are equipped with specially designed turning fins to eliminate whistles. These fins are set 2 inches apart and follow the contour of the turn.

GRILLES IN PAIRS

The trunk system runs down the center of the auditorium a distance of 88 feet and air enters the theater through eight grilles in this duct, aligned in pairs. Ductwork and grilles in the Beechwood theater are concealed by a large ornamental plaster sheet, which is part of the basic theater design. Grilles are Independent "Fabrikated," equipped with deflection bars.

Five return air grilles are located at the base of the stage apron and standee rail.

Auxiliary systems serve the executive offices of the chain in the Boulevard theater, and the large foyer in the Beechwood. Conditioned air is supplied to the ticket booths by special grilles, designed to provide adequate circulation in a small space and equipped with air volume controls.

SUMMER-WINTER CONTROL

The controls are Spencer summer-winter thermostats, one in each of the auditoriums, and one for each of the auxiliary systems. The auditorium controls are located at the wall side of the first row of seats nearest the stage.

Summer operating cost for systems of this type are estimated at from \$30 to \$40 per month for each theater, the only cost being the price of electrical energy for an 11-hp. connected load.

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Model 153 Water-cooled Machine



Interior of the Beechwood Theater, above, illustrates how the overhead duct system running down the center of the auditorium is concealed by a large plaster ornament which blends in with the decorative scheme.

Airtemp Distributor To Train Salesmen

OMAHA, Neb.—The Sidles Co., appliance wholesaler with headquarters here, is actively promoting air conditioning, which it describes as "the fastest growing business in America today," and a two-column advertisement was run by the company recently to attract men to sell Airtemp packaged equipment.

"This advertisement is addressed not only to men with selling experience but to men now employed who have never had a proper chance to find out if they could sell," the advertisement declared. "Applicants chosen will be given, free, a new type of sales training on packaged 'All-In-One' commercial and residential air conditioning... a complete course prepared by the air conditioning industry's foremost merchandising men..."

It was pointed out that sessions would be held during the evening for applicants employed, and that those qualifying will be given jobs.

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REFRIGERATED FLEX-LINE BEER LINE ASSEMBLY

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New Plant Swings Into Action



One of the ways in which Peerless expects to speed deliveries and gain greater product control in its new Marion, Ind. plant is through the establishment of an electro tin plating department, an operation that was not

previously done in the Peerless plant. Seven tanks such as this have been installed. At the far left is John Cummings, new production manager, and next to him is Vic Smith, Peerless chief engineer.



Part of the production line on expansion valves in which girls are being used for assembly work. Men in the foreground are M. W. Knight, national accounts manager and direc-

tor of publicity, and L. J. Pitcher, sales manager of the expansion valve department. At the far right is Elmer Lederer, manager of the valve department.



A small section of the 200-foot long unit cooler production line, arranged to speed assembly of this item on a

mass production line. Gentleman with the hat is R. W. Kritzer, actively engaged in "setting the wheels going."

Peerless Reveals Plans For Production & Warehousing With New Plant Setup

MARION, Ind.—Peerless of America, Inc., which has recently moved to a new plant and headquarters here (in the former Indiana Truck Co. properties comprising 12 buildings with 200,000 sq. ft. of floor space), has just outlined its manufacturing and sales office plans under its new setup.

Eventually all of the Peerless plants now located in Los Angeles, Dallas, Long Island City, and Chicago will be consolidated in this new factory. At present the operations formerly conducted in Los Angeles and Dallas have been incorporated in the plant here, and a substantial portion of the manufacturing operations in the Chicago plant has been transferred. The Long Island City factory will be transferred complete at the end of the present refrigeration season.

Sales offices and warehousing facilities will be maintained in Chicago, New York City, Los Angeles, and Dallas.

According to Peerless officials,

"branch" factories are not necessary now because commercial refrigeration products (particularly cooling coils) have become more standardized and there is no longer any need to provide "overnight" service on a coil of special fit or design.

It was necessary to start consolidation activities of the plant activities at a time when the backlog of orders was at a 10-year high and this, coupled with a shortage of essential defense materials, resulted in a temporary slowing down on deliveries, state Peerless officials, but with the opening of new and increased plant facilities in Marion the backlog of orders is being rapidly absorbed.

Officials claim that by the middle of the present refrigeration season production and deliveries will be the best in Peerless history, because of (1) advances made when redesigning became necessary through shortages in certain materials; (2) purchase of new machinery and acquisition of new personnel with automatic production line experience, with the use of conveyor systems facilitating complete fabrication of the product in a remarkably short time.

Key men from various factories have been moved to Marion, and more than 500 employees will be engaged during the season, it was stated.

E. Bockmeyer will headquarter in the New York sales office, directing eastern operations. A. H. Witt will operate in the same capacity in Los Angeles, and H. E. Wickham will be in Dallas. M. W. Knight will headquarter in Chicago, where he will handle sales in the midwest territory, direct national account activities, and also function as director of publicity.

R. C. Follett, who recently joined the Peerless organization, will direct sales activities from Marion in the capacity of sales manager.

New Immersion-Type Food Freezer Developed By Texas U. Engineer

AUSTIN, Tex.—A "polyphase quick freezing system" which freezes foods by immersing them in a chilled heat transfer fluid and is claimed to be cheaper, faster, and more flexible than other quick-freezing processes has been developed by Luis H. Bartlett, of the University of Texas bureau of engineering research, under the supervision of W. R. Woolrich, engineering dean.

This new unit is said to embody all advantages of fluid contact freezing—such as higher rate of heat transfer, small temperature differentials, and improved character of the product—and to overcome some of the handicaps of this method—such as excessive energy dissipation to the heat transfer medium, incomplete freezing of some foods, and changes in the heat transfer medium.

University patents are pending on both the freezing process and the machine that does the work. For the time being, the university itself will manufacture the new freezing units and lease them to users. With the invention patented under the University Research Corp., any income from it will be combined with income from other university patented products and processes to form a pool that can be tapped only to endow further research and to secure other patents.

Mechanical element of the system is housed in a box-like structure measuring 5 x 5 x 8 feet. Basically this system consists of a horizontal pipe 9 inches in diameter and about

6 feet in length. This tube is jacketed with cooling coils and is partly filled with the fluid heat-transfer medium into which the produce to be frozen is dropped.

The product-laden solution is then propelled through the tube by means of a slowly rotating screw which also scrapes the inside of the pipe to prevent ice clogging, a factor which has handicapped previous types.

The freezing tube is equipped with hoppers at each end, a return tube to permit continuous circulation of the freezing medium, and a screen or grid to separate the frozen food from the freezing medium.

In operation, food is dropped into the polyphase medium in the feed hopper, where it floats partially submerged. It is then carried through the freezing tube by the action of the rotating screw. The stream of freezing medium serves as an elastic conveyor which cannot deform or crush the most delicate food portions.

Speed of the rotating screw can be regulated to provide for complete freezing of any sized particles of food, allowing the food to remain in contact with the freezing medium any length of time from 5 to 17 minutes.

An unusual drive gear which rotates the screw about one-fifth turn forward and then about one-sixth turn backward is employed. This motion applies the required agitation to the freezing medium and still propels it forward through the tube.

After the freezing medium carry-

ing the food has traversed the length of the tube, it passes through a strainer or screen upon which the particles of food are deposited and then returns to the feed hopper. The screen is raked periodically to remove the frozen product, which is then drained and packaged.

The Bartlett unit is claimed to be about one-fifth as expensive to build (about \$1,500) and about one-half as heavy (700 pounds for a unit with a capacity of 50 pounds of frozen produce per hour) as the most advanced equipment of similar capacity now in use. The process is said to require only about 10% of the freezing medium needed in other immersion methods, and to actually cut freezing time to as low as 3 minutes.

One of the chief advantages of immersion freezing is that each portion of food is frozen individually, rather than being packed into a solid block. This is said to facilitate packaging and to make frozen foods more economical for the consumer to use, inasmuch as they can be stored in bulk and used as desired.

One of the possible disadvantages of the immersion process is the objection of some individuals to the slightly sweet taste which may be imparted to some products by the invert sugar solution which comprises the freezing medium. This problem is now being investigated by the home economics department of the University of Texas.

Since the Bartlett freezer is relatively light and compact, it can be readily transported. For instance the unit with a capacity of 50 pounds of produce per hour can be moved by a ½-ton pickup truck, making it possible for the unit to be used for on-the-spot freezing of fresh produce as it is picked from the field.



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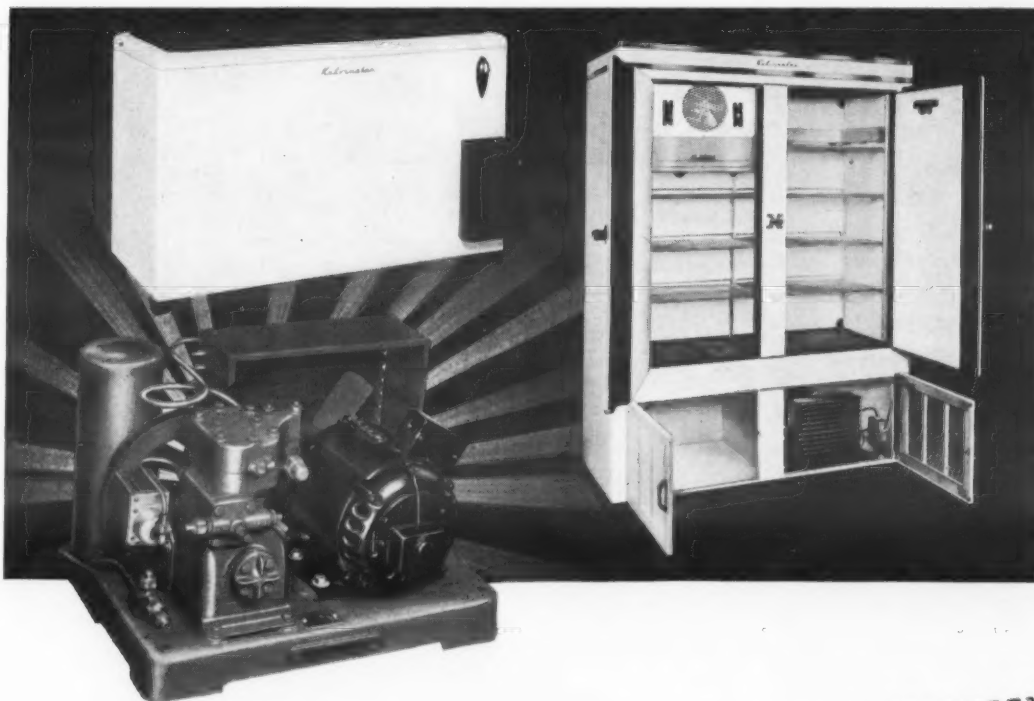
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What's New

Descriptions of some of the brand new items for the refrigeration and air conditioning, and major appliance fields.

New Puro Bubbler Has Large Capacity

NEW YORK CITY—A new bubbler top water cooler designed to meet the requirements of companies desiring a large capacity unit of this type, has been added to the line of Puro Filter Corp. of America.

This new cooler has a capacity of 16 to 20 gallons per hour, and is equipped with a 1/2-hp. highside. Louvered front panels have been incorporated in the unit's design in order to increase the air circulation and improve appearance.

Puro's specially designed, non-plugging pre-cooler is used on this unit to increase cooling capacity and operating efficiency.

Russell Humidifier Fits Home Systems

BRIDGEPORT, Conn.—Designed to be an integral part of the home heating system, the "Warco Moisturizer," a new humidifier, has been announced by W. A. Russell & Co. here.

The automatic humidifier may be used on steam, vapor, hot water, or warm air heating systems, and is generally installed beneath a radiator or in the cellar directly below a radiator. It operates on the principle of evaporating a thin film of water around a copper evaporator which is heated by steam supplied by the heating system or from a special steam generator when used with hot water or warm air plants.

Float valve automatically furnishes necessary water from either water line or radiator condensate. One Moisturizer is claimed to be ample for the average house of six or seven rooms, consuming 5 to 8 gallons of water a day in cold weather to maintain a relative humidity of 30 to 40%. A manual control valve permits regulation of the amount of humidity required for individual needs.

Attachments Keynote G-E Cleaner Line

BRIDGEPORT, Conn.—Two factors important in the designing of General Electric's 1941 line of vacuum cleaners were the desire to provide greater values at lower costs and to lower the price of combinations of cleaners with attachments, sweepers, and hand cleaners, explains A. L. Atkinson, manager of the cleaner section.

Many women who owned the conventional cleaner were apt to leave the attachments hidden in a closet, but the new tank type cleaners, points out Mr. Atkinson, have done much to break this mental jam.

Top model in the floor cleaner line is AVF-19, with recommended list price of \$57.50. It is finished in polished aluminum with maroon trim, and features a "headlight," two-speed motor, foot-operated nozzle

AVT-140 tank type cleaner, standard equipment for which includes an 8-foot hose with swivel, two 22-inch extension tubes, floor tool, upholstery nozzle, blower tool, floor brush, and rubber dusting tool. Motor is 1/2 hp.

In the \$49.95 price bracket there is AVF-17S, a heavy-duty machine similar to the deluxe model excepting for its one-speed motor. Included in this price is a Wagner sweeper or attachments.

Deluxe tank cleaner is model AVT-150, priced at \$59.95. It is powered by a 1/2-hp. air-cooled motor. Special attachments include a sprayer deodorizer and a supply of dichloride crystals, in addition to the usual tools.

There are also three hand cleaners in the 1941 line. Model AVH-30 is a suction type cleaner for \$14.95; model AVH-40 is a motor driven brush type for \$17.95, and AVH-21 is listed at \$19.95 with accessories.

The AVA-51 set of attachments is available separately for \$9.95, while the deluxe AVA-180 attachments, with carrying case, sell for \$12.95.

Cabinet Dryer Handles Light Laundry Items

CHICAGO—Designed to promote home laundry equipment sales, an electric dryer for baby clothes, damp towels, washcloths, underthings, etc. has been announced by Hotpoint. The dryer, which is available to Hotpoint dealers only, consists of a cabinet containing wooden cross-bars, and is heated by a Calrod unit. It may be plugged into any light socket.

H. E. Warren, Hotpoint's home laundry division manager, developed the unit.

Automatic Smoke Detector Announced

CHICAGO—An automatic smoke detector for the control of air conditioning and ventilating systems has been announced by Worner Products Corp. here. When attached to any duct system the electronic unit will detect the passage of smoke and automatically stop the ventilating fan, it is claimed.

Features of the smoke detector are a visible operating indicator and a dust-tight lens that can be removed, cleaned, and replaced without stopping the system or entering the duct.

Another use of the detector is to close all dampers in the system, thus blocking the entrance of smoke into the building. The device operates on the visual principle.

Hotpoint Makes Timer For Wringer Washers

CHICAGO—Automatic time control, as special equipment for any wringer-type washer, has been announced by the Hotpoint home laundry division. The timer itself may be set for any predetermined washing time from one to 15 minutes. When washing time has elapsed, it automatically stops the washer and sounds a melotone chime. An outer dial indicates the correct washing time for various type clothes and fabrics.

The Hotpoint timer is available to retailers in a special accessory package. It can be installed, in 10 minutes, on any wringer-type washer in the Hotpoint line, it is claimed.

Plastic Agitators In New Norge Washer

DETROIT—Five electric models and three gasoline models, each featuring the new plastic "Ro-ta-tor" agitating mechanism and "Damp Dryer" wringer arrangement, comprise the Norge washing machine line for 1941.

An electric motor cradle is provided with all gas-powered models so that the washer may be converted to electric operation at any time

that power becomes available. Only a wrench and a screwdriver are necessary for installing the electric motor.

Most advertised feature of the new line is the Ro-ta-tor itself. This device, a plastic part which replaces the metal agitator formerly used, is claimed to be "satin-smooth" to prevent wear and tear on clothes. Because its surface is impervious to corrosion and the chemical action of washing compounds and water softeners, the Ro-ta-tor is claimed to retain its glass-like smoothness for the life of the washer.

Action set up by the Ro-ta-tor is described as a combination "roll-around" and "under-and-over" cycle. Tests with colored cloth "tracers" in white batches of clothes are reported to have revealed that the same pieces



Girl runs a silk stocking over the plastic Ro-ta-tor of the new Norge washer, to demonstrate its satin-like smoothness.

in the machine rise to the surface from four to six times a minute, every time in a different place.

As the plastic Ro-ta-tor weighs considerably less than the lightest metal agitator, and may be quickly removed simply by turning a lock-cap, it may be readily washed and replaced.

The Norge Damp Dryer is said to work with a gentle pressing action that makes it possible for a thread and a clothespin to pass through the rollers side by side, each being gripped gently but firmly by the rollers themselves. A pressure selector enables the user to choose the pressure desired for various fabrics.

The dryer can be swung to any of eight locked-in positions. The fingertip roll release operates in such a way that the rolls separate immediately no matter how the release bar is touched.

Each washer is provided with a self-lubricating 1/4-hp. motor which drives the unit through a simplified and oil-proof Borg-Warner transmission built to automobile standards.

Additions Made To 'Polartron' Controls

MINNEAPOLIS—Addition of temperature controls to the Series 40 Polartron line, with some new features, was announced to the field recently by the refrigeration division of Minneapolis-Honeywell Regulator Co.

The new controls, models L480 and L481, have a single moving lever which transmits temperature change directly into switch action, and is said to enable a lower price on the units. Interchangeable snap-acting switches are employed, each switch having a reverse acting contact which may be employed on special applications requiring a contact to close on temperature fall.

Single turn calibrated adjustment dial is standard. Cold control lever furnished with each control permits a limited customer adjustment if desired. A protecting cover permits sealing adjustments; differential is adjustable inside the case.

Accessories available include semi-universal mounting plates, interchangeable covers to give manual start or manual off or both, and the W55 relay for remote lock-out or reset or for use with a remote pressure or temperature control.

Another new development in the M-H line of accessories this year is a bi-metallic device, installed inside the case, to start the compressor when the ambient temperature gets above 40° when the control is in a cold location.

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RATES: Fifty words or less in 6-point light-face type only, one insertion, \$2.00, additional words, four cents each. Three consecutive insertions, \$5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS AVAILABLE

DESIRED by large manufacturer experienced man in refrigeration sales. State age, nationality, experience and salary desired. Replies held confidential. Box 1329, Air Conditioning & Refrigeration News.

POSITIONS available in leading tropical markets for adaptable, self-reliant men experienced in sales, application, and service self-contained air conditioners having 1/2 to 15 tons capacity. Salaries, \$3,000-\$4,500. Knowledge Spanish helpful for Latin America. Send full particulars, in confidence. REMINGTON AIR CONDITIONING CO., 44 Beaver St., New York, N. Y.

POSITIONS WANTED

SERVICE MAN, 15 years' experience in commercial and domestic refrigeration, fully acquainted in load estimate and equipment selection, fluent French language, free to travel, desires position in West Indies, Central or South America. E. R. HARRIS, 1805 University Ave., Madison, Wis.

REPRESENTATIVES AVAILABLE

ESTABLISHED manufacturers agency has facilities for representing manufacturer in Maryland, Delaware, District of Columbia, and Virginia. Box No. 1324, Air Conditioning & Refrigeration News.

I WISH to represent radio, refrigeration or refrigeration parts manufacturer in the Southwest. Have an excellent clientele established particularly in Texas and Louisiana. Reply Box 1328, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

GENERAL Refrigerator Company is announcing the new 1941 line. General Display Cases, Reach-In Cabinets, Walk-In Coolers and Beer Pre-Coolers. For almost half a century we are manufacturers of the highest quality commercial refrigerators. Compare with other higher priced lines. Write in for prices and discounts on the biggest money making line in the country. GENERAL REFRIGERATOR CO., 5th & Bainbridge Sts., Philadelphia, Pa.

SELL refrigerator display cases, walk-in coolers, reach-in refrigerators, refrigerating units, to meat markets, grocers, taverns, etc. Financing arrangements to help sell. Write for full information or see EHRICH REFRIGERATOR MFG. CO., St. Joseph, Mo., Dept. A.

HERE IT IS! Three catalogs in one. General Electric, Westinghouse, Majestic, Grunow Hermetic Units and compressors, Frigidaire, Kelvinator, Norge, Crosley, etc., compressors, evaporators, and parts. Complete line refrigeration parts, tools, and supplies. Write for your copy on your letterhead. SERVICE PARTS CO., 1101-3 N. 24th Ave., Melrose Park, Ill.

GRUNOWS "as is" but complete—\$12.00 each. Many late models. Write for stock list. Also available complete line of "as is" and rebuilt commercial units; new Westinghouse air conditioning low-sides; new Fedders condensers and other surplus material. Write for details. ASSOCIATED REFRIGERATOR PLANT, INC., 3028 W. Hunting Park Ave., Philadelphia, Pa.

REPAIR SERVICE

GENERAL ELECTRIC DR1-DR2 Monitor Top Units exchanges \$25.00 F.O.B. our factory. Send your defective unit. On receipt we make immediate shipment of completely rebuilt, refinished unit with one year guarantee. Like new in every respect. Westinghouse and other hermetically sealed units, prices on request. MACKLAM REFRIGERATOR SALES & SERVICE CORP., 220-222 W. Huron St., Chicago, Ill.

CONTROL REPAIR Service. Domestic controls reconditioned equal to new at a small cost. All work guaranteed for one year. Prices upon request. UNITED SPEEDOMETER REPAIR CO., INC., 342 West 70th Street, New York City.

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HALELECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

For Information on Motors FOR ALL TYPES OF Air Conditioning and Refrigeration Equipment WRITE TO

Wagner Electric Corporation
8441 PLYMOUTH AVE. ST. LOUIS, MO.

BUY ACME WATER COOLERS JACKSON ACME INDUSTRIES MICH

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GALE
CONDENSING UNITS
Precision built for efficient operation.

GALE PRODUCTS
1635 Monmouth Blvd. Galesburg, Ill.

Condensing Units for every commercial refrigeration and air conditioning requirement. Also packaged air conditioners.

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AIR CONDITIONING AND COMMERCIAL

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Division of Curtis Manufacturing Co.
1912 Kienlen Ave., St. Louis, Mo.

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SERVICE PARTS CO.
1101-03 N. 24th Ave. Melrose Park, Ill.

Anaconda Copper Refrigeration Tubes

Unusually long lengths!

THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices, Waterbury, Conn.



Deluxe G-E tank-type cleaner and attachment case.

attachment, brush, condenser to eliminate radio interference, and hollow, pistol-grip handle holding a dustcloth. Motor is air cooled by a separate fan.

Model AVF-15 "Special" floor cleaner, with recommended price of \$29.95, has a low furniture clearance, being 6 3/4 inches high.

Three combination offers at \$39.95 are included in this year's promotion plans. One is a combination of a model AVF-25 floor cleaner and the AVH-45 hand cleaner. Both have motor-driven brushes. Second combination offers AVF-26 floor cleaner with a Wagner sweeper or a set of attachments. Third special is the

Dayton V-BELTS

Silent, vibrationless, dependable, long-lasting. Powerful grip prevents slipping. A nearby distributor carries a complete stock for appliances and machines.

THE DAYTON RUBBER MFG. CO., DAYTON, OHIO
World's Largest Manufacturer of V-Belts

Use CHICAGO SEALS
for seal replacements
A complete line in all sizes

CHICAGO SEAL CO.
20 North Wacker Dr., Chicago

Most Common Service Troubles In a Locker Storage Plant

AUSTIN, Tex.—Some of the most common mechanical troubles arising in connection with the operation of a frozen food locker storage plant were outlined by J. W. Stockham of Texas Power & Light Co., Dallas, when he spoke before the Food Preservation Conference held at the University of Texas here last month. Among the many things which can go wrong with a locker plant refrigeration system to affect the operating cost of the plant, Mr. Stockham cited the following as the most likely to occur:

- Failure of controls to work.
- Safety pop valve leaking high pressure side into low pressure side.
- Air in refrigerant system.
- Valves stopped with pipe scale.
- Scale or algae on condenser pipes.
- Defrosters operating same time as compressors.
- Suction screens on pump clogged with trash.

Changing from one type evaporator unit to another may result in drop in suction pressure, with resultant uneconomical operation.

Compressor speed too high. There should be two drives for change of speeds during seasonal operation.

No water drains on condensers, compressor jackets, and pumps resulting in broken parts during freezing weather.

Winter maintenance not properly done.

Condensers needed cleaning.

Too much refrigerant in the system.

Not enough refrigerant in the system.

Success of a locker plant, Mr. Stockham contended, depends upon these five factors:

- Rental of lockers before construction of the plant.
- Personality and salesmanship of the operator.
- Sanitation and appearance of the plant.
- Location and type of community in which the plant is situated.
- Services rendered.

Job of the manager, Mr. Stockham pointed out, is to keep production in balance with sales and buying.

As to costs of plant operation, he estimated that about 50% of the total expense is labor, while heat, light, power, and water account for another 20%.

Locker Briefs...

TULARE, CALIF.

TULARE, Calif.—A 500-locker frozen food storage plant to be known as The Food Bank is being constructed here for Robert Fish of Valley Refrigeration Co. and Stanley Smith of Stanley's Meat Market at a cost of approximately \$14,000. The plant is expected to be in operation by April 1.

The 60 x 80-ft. brick and concrete building of modern design will house both a grocery and meat market in addition to the locker plant itself. Besides the locker room, aging room, the plant will have a bulk storage room, a pickling room, and a butcher box.

Refrigeration equipment, all of which will be automatically controlled, is being supplied by Clarence F. (Sandy) Pratt's California Refrigerator Co. in San Francisco. P. B. Shirley is general contractor.

WISCONSIN RAPIDS, WIS.

WISCONSIN RAPIDS, Wis.—Nate Wertheimer plans to open a combination frozen food storage plant and retail food market here this spring. The plant will be equipped with 350 lockers. A complete meat processing service will be offered. Donn Haugen, local architect, designed the plant.

SAVANNAH, MO.

SAVANNAH, Mo.—A 200-locker plant with freezer and cooler rooms will be constructed for Cobb Grocery Co. here by the E. Murray Engineering Co., 920 Francis St., St. Joseph. Refrigeration will be supplied by a 3-ton Carrier "Freon" unit.

HORICON, WIS.

HORICON, Wis.—Some 369 persons attended the recent opening of Brown's locker plant here. Door prizes were awarded, the winner receiving one year's free locker rental and the runner-up a 5-pound beef roast.

BLANCHARDVILLE, WIS.

BLANCHARDVILLE, Wis.—Sanitary Food Market, operated here by H. B. and V. A. Marshall, has opened a 175-locker frozen food storage plant in connection with its meat market here.

PLAINFIELD, ILL.

PLAINFIELD, Ill.—Clover Farm Store is opening a 175-locker frozen food storage plant here, according to a half-page advertisement in the local newspaper.

MASON CITY, IOWA

MASON CITY, Iowa—Coffee and doughnuts were served to visitors who attended the opening celebration of the locker plant established here by the Tip Top Store.

Goodrich's Synthetic Compares Well With Natural Rubber

AKRON, Ohio — Properties of Ameripol, the synthetic rubber announced last year by B. F. Goodrich Co., are described in a bulletin just issued by the company.

This synthetic rubber, which in the crude form is similar in appearance to natural crude rubber, can be compounded, it is said, to give a wide range of properties in the finished product.

Compounds can be made in the same hardness range as that of natural rubber, and elongation is about the same. Tensile strengths can be varied by compounding. Elasticity is lower than natural rubber, but these synthetic compounds have about the same permanent set, or recovery after distortion.

Tear resistance is somewhat lower, while abrasion resistance under normal conditions is about the same. At high temperatures and in the presence of oils, Ameripol is said to be superior to natural rubber in abrasion resistance.

Maximum swell for the synthetic in petroleum products is 10%, it is claimed, and maximum shrinkage will normally not exceed 20%. Although resistant to benzol and carbon tetrachloride, it is badly swollen by acetone.

Ameripol products, the company claims, have been operated satisfactorily at temperatures ranging from 200° to 400° F. The synthetic becomes stiffer than natural rubber in sub-freezing temperatures, but recovers its pliability when temperature rises. Resistance to cracking when exposed to sunlight is little better than natural rubber, it is said.

The synthetic is claimed to resist aging better than the natural product, but its resistance to acids and alkalis is about the same. Special cements permit vulcanization and adhesion to metals, including brass, if the metals are suitably roughened by sand or shot blasting.

One For South Dakota

BISON, S. D.—A York-refrigerated frozen food locker storage plant is being installed in a section of the Red & White Store here. The plant will be operated by J. A. Jackson.

KERO TEST

Valves and Fittings
The Standard of the
Industry

Kerotest Manufacturing Co.
Pittsburgh, Pa.

Basic Engineering Data on 'Plates'

Editor's Note: On page 15 of last week's (April 16) issue of AIR CONDITIONING & REFRIGERATION NEWS was a discussion in considerable detail of some of the fundamentals in sizing, selecting, and installing vacuum plate type evaporators for a refrigerated locker plant installation. The discussion was from a talk made by A. F. Sawyer of Dole Refrigerating Co. before the recent Canadian refrigeration meeting in Toronto.

Following information gives some fundamental engineering data on vacuum plate work in locker systems, including product loads, plate 'K' factors, standard sizes of plates, and refrigerant charge.

ENGINEERING DATA

A locker plant averages 2 lbs. of meat per locker per day.

The product load on chill room is about 3,900 B.t.u. per 100 lbs. of meat per day, cooling from 90° to 36°.

The product load on quick freeze plates is about 11,900 B.t.u. per 100 lbs. of meat per day, cooling from 45° to -10°.

The quick-freeze plates will freeze about 7 to 9 lbs. of meat per square foot per day.

The K factor of vacuum plates at about 0° temperature is 2. (B.t.u. per square foot, per degree temperature difference, per hour.)

The K factor of vacuum plates at 20° or above is 2.5.

Cork Insulation K Factor

Two-inch cork—3.6 per 24 hours;
4-inch cork—1.8 per 24 hours;
6-inch cork—1.2 per 24 hours;
8-inch cork—.9 per 24 hours.

Plate Capacity for Locker Room, Gravity Air

2 K x 16° T.D. = 32 B.t.u. per square foot of plate per degree per hour temperature difference.

Standard Sizes of Locker and Freezer Plates

	One Side	Both Sides
12" x 72"—6 sq. ft.	12 sq. ft.	
12" x 84"—7 sq. ft.	14 sq. ft.	
12" x 108"—9 sq. ft.	18 sq. ft.	
12" x 144"—12 sq. ft.	24 sq. ft.	
22" x 48"—7.4 sq. ft.	14.8 sq. ft.	
22" x 60"—9.2 sq. ft.	18.4 sq. ft.	
22" x 72"—11 sq. ft.	22 sq. ft.	
22" x 108"—16.5 sq. ft.	33 sq. ft.	

Refrigerant Charge

Refrigerant capacity in lbs. per sq. ft. of plate—one side:

	Direct Exp. Coil	Flooded Coil
—"Freon"—		
Tube Size		
3/4" o.d.	.22	.66
—"Methyl Chloride"—		
Tube Size		
3/4" o.d.	.15	.45
—"Ammonia"—		
Tube Size		
3/4" o.d.	.10	.30

CLARAGE FANS—QUIET RUNNING!

Every Clarage Fan Wheel is BOTH statically and dynamically balanced—every precaution taken to insure freedom from vibration and QUIET operation. That's one BIG reason why so many unit conditioner manufacturers prefer Clarage Wheels and Complete Assemblies. And, yes, we build a complete range of sizes! May we have your next inquiry?

CLARAGE FAN COMPANY
KALAMAZOO, MICHIGAN
Sales Offices in All Principal Cities

Dealer Makes His Users the 'Stars' In Movies of Locker Plant Operation

DALLAS, Tex.—Motion pictures are proving to be a big help in selling frozen food locker plant installations for H. W. Cline, president of Southern Refrigeration Co. here.

When he first conceived the idea, Mr. Cline determined to do his experimenting with rental equipment, but his initial efforts along this line convinced him both of the practicability of amateur movies as a locker plant sales medium and of his own ability to satisfactorily produce them.

So Mr. Cline equipped himself with a 16 mm. movie camera, projector, and all of the paraphernalia necessary for the making of colored films, and set out to do a real job.

One of his first attempts at locker plant movies was the film "shot" in the plant planned and built by him for the Luttrell Market in Arlington, Tex. This film presents the story of what happens to a carcass which is brought into the modern locker plant. It shows the arrival of the meat, its movement by track into the chill room and the aging room, and then proceeds to show how it is cut, wrapped, and finally stored in the patron's locker.

In making such movies, Mr. Cline employs residents of the community as his "stars" and "extras." This imparts a local flavor to the film which the operators of the Luttrell plant quickly seized upon as a device to aid them in building increased interest in their locker facilities.

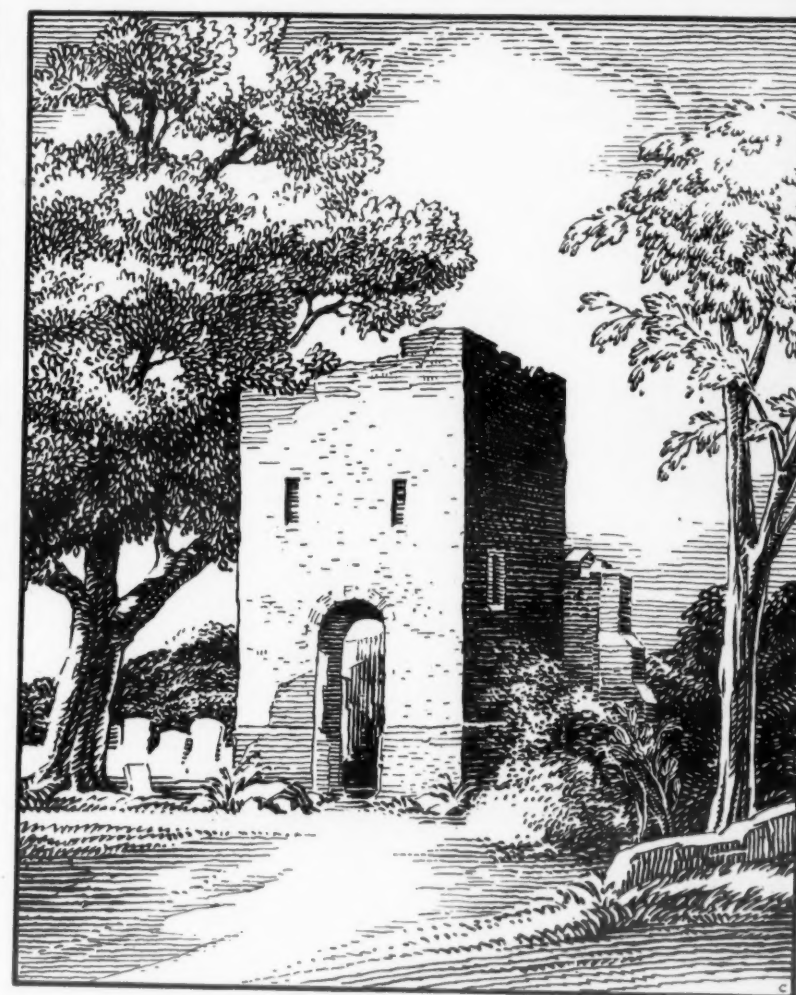
Thus these films not only help Mr. Cline sell locker plants, but they also help the operators of the plants he builds to sell their locker service.

Mr. Cline plans to develop a sales technique in which the films thus produced will form a basic part. Short professional comedies now available from film distributors on a low-cost rental basis will be used to balance off programs to be presented in communities where interest in the building of a locker plant is being encouraged. He also has received assurances from the manufacturers whose products he uses in his locker plant installations that they will cooperate with him in furnishing whatever films may be available for his use.

Iowa Town Will Have 100-Locker Plant

GILBERTVILLE, Iowa — Equipment has arrived for the frozen food locker plant which is to be started here, according to J. Ray Trunnell, manager of the La Porte City Food Locker Co. in nearby La Porte, Iowa. The Gilbertville plant will be started with about 100 lockers. Food processing will be handled at the La Porte plant.

The La Porte plant itself, which was started two years ago with 180 lockers, is soon to be increased in size to 290 lockers.



Church in Old Jamestown, Virginia, the first permanent English settlement, and seat of the first democratic government in the New World.

VIRGINIA—a name that has earned respect

Only when we look back at the first crude beginnings can we realize how far a nation or an industry has advanced.

Forty years ago, the great refrigeration industry was scarcely in existence. We have come a long way since then, and that way has been made easier by constructive industry policies which the Virginia Smelting Company has shared in developing.

We are working steadily along these same policies today—and tomorrow.

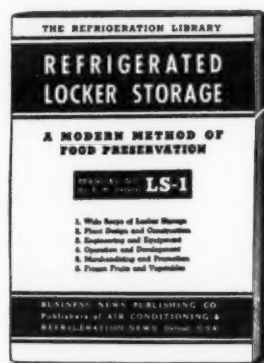


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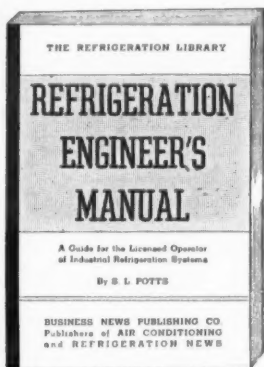
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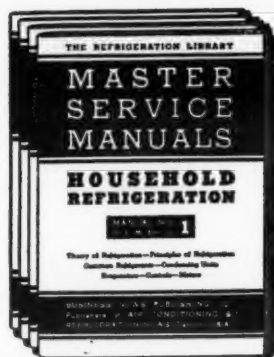
BY P. B. REDEKER

MANUAL NO. LS-1—Locker storage plant design and construction, engineering, and merchandising methods being used by experienced operators in storing meats, fruits, and vegetables. 112 pages. Price \$1.00.



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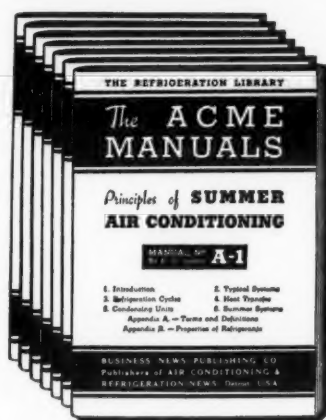
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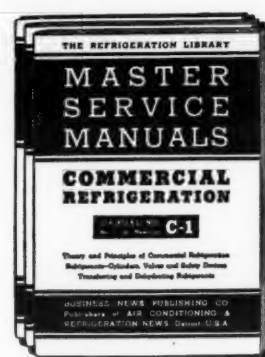
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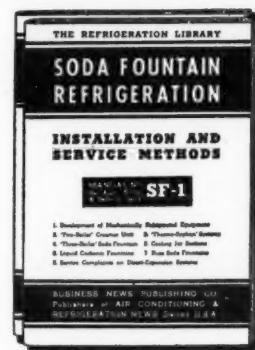
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Three manuals by K. M. Newcum dealing with the component parts for commercial refrigeration applications provide advanced training for the beginner and valuable information for the practical man.

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Rochester—Pfandlers Refrigeration Parts, Inc.
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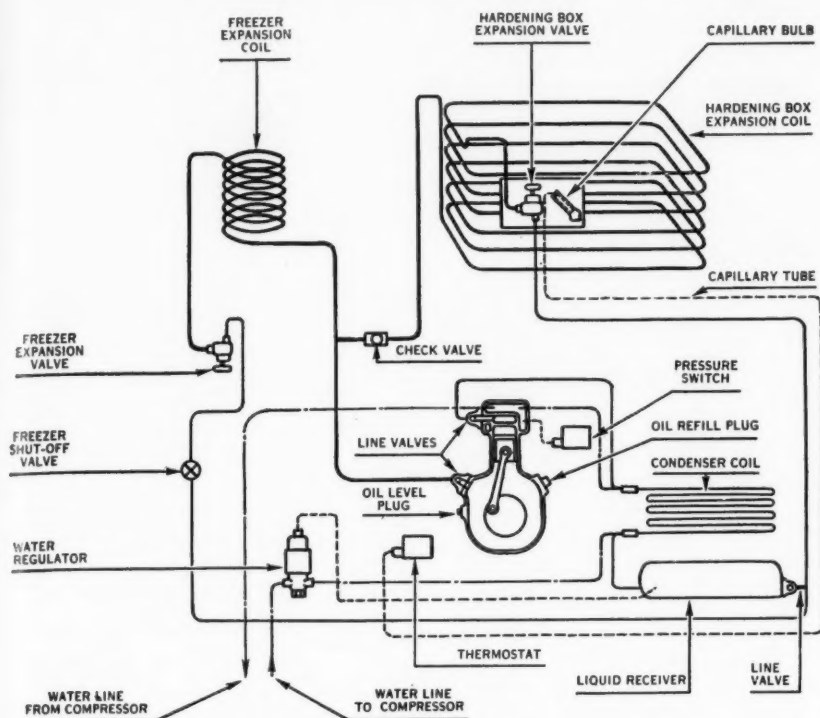
WISCONSIN
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Milwaukee—Refrigeration Specialties Co.
Milwaukee—Thermal Co., Inc.
Madison—Gustave A. Larson Co.
Oshkosh—Gustave A. Larson Co.

CANADA
Vancouver, B. C.—Fleck Bros., Ltd.
Winnipeg, Man.—Winnipeg Refrigerator Parts, Ltd.
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Fig. 28—Tuthill's Refrigeration System



Operating and Service Methods For Dry-Expansion Counter Freezers

By Arch Black and Dean C. Seitz

Editor's Note: This is one of a series of articles on the servicing of counter-type ice cream freezers, which have been appearing in the issues of AIR CONDITIONING & REFRIGERATION NEWS in the past few months.

In this instalment additional information pertaining to the Tuthill 2½ and 5-gallon freezers is given, with particular reference to cabinet expansion valve adjustment.

More Notes on Tuthill Freezers

ADJUSTING CABINET EXPANSION VALVES

In Fig. 28 an automatic expansion valve is shown for the cabinet and in order to reduce temperature of the cabinet as rapidly as possible, this expansion valve should be set to operate at 12 lbs. suction pressure. With this setting, compressor should be left to run for an hour and a half or until cabinet temperature reaches about 20° F. above zero.

When this temperature is reached, the cabinet expansion valve should be reset so that the frost line will appear somewhere in the suction line between the cabinet and the compressor. Frosting should not occur

on the compressor body but should stop approximately at the check valve on the line. For the approximate proper settings of cabinet expansion valves, under varying conditions, Table 6 should be referred to. Following this procedure it will be possible to reduce temperature in the hardening cabinet to 20° F. below zero in less than 7 hours. These adjustments should be made, of course, with the compressor working only in the hardening cabinet.

In some cases, and adjustable thermostatic expansion valve is used in the cabinet, and in such event the valve should be set to obtain slight frosting on the check valve

Table 6—Cabinet Suction Pressure
(Inches Vacuum)*

Compressor H.P.	40 Gal. Cabinet	60 Gal. Cabinet
1	16	14
1½	19	17
2	22	20

*Suction pressures given are for maintaining temperature of 20° F. below zero in cabinet, and should be the prevailing pressures when cabinet is down to temperature. When higher temperatures are required, correspondingly higher pressures should be used.

The Service Man's Notebook

By Henry Kronke

Mr. Kronke, a service engineer in New York City, compiles useful, handy data for use in his work as he finds a repeated need for certain kinds of information. The editors suggest that service and installation engineer readers of the NEWS cut these tables out for their own notebooks.

BANANA CONDITIONS FOR RIPENING AND STORAGE

For fast ripening of hard green bananas in three to four days: Rapidly raise the temperature to 70° F. at 90 to 95% relative humidity. No ventilation except for burner. After 24 hours reduce temperature to 68° F. at 90 to 95% relative humidity until fruit has colored, then hold at 66° F. with 80% relative humidity and ventilate, three to four air changes per hour. To hasten ripening add 1 cubic foot of ethylene to each 1,000 cubic feet of room space.

Slow ripening in eight to 10 days: Cool rapidly or warm slowly to 60° to 62° F. at 90 to 95% relative humidity. Ventilate carefully to slow up ripening, but maintain high relative humidity.

Hold ripe bananas at 56° to 60° F. at 75 to 85% relative humidity. Three air changes per hour, or as temperature and humidity control demands. Too high a humidity causes mold, too low a humidity results in shrinkage.

Specific heat of bananas equals 0.9.

Ripening bananas give off 8.6 B.t.u. per pound per day.

CANDY TEMPERATURES AND HUMIDITIES

Chocolate Storage Room	60° F.
Candy Storage, Wholesale	50° F., 50% R.H.
Candy Cases, Retail	68-70° F., 50% R.H.
Candy Packing Room	65° F.
Hard Candy Manufacturing	70° F.
Chocolate Dipping Room	60° F.
Chocolates Are Poured At	98-100° F.
Specific Heat of Chocolate	= 0.9

The heat leak into candy cases with double glass and without lights is 1,584 B.t.u. and for cases with lights 1,944 B.t.u. per day per foot length of case. The temperature differential between coil and fixture should be greater than usual in order to keep the proper humidity in the case.

and the suction line as explained above, but caution should be exercised not to permit frosting to occur on the compressor body. After this is set, no further adjustment of the thermostatic expansion valve should be necessary.

MIX COMPARTMENT

The mix compartment provided in Tuthill freezers is intended, like all others, for the storing of mix or dispensing of frosted malted milk or kindred products that have already been frozen. This compartment is not suitable for dispensing bottled goods unless such goods have been previously chilled to the temperature of the mix compartment.

Normally, the mix compartment temperature will maintain itself at about 35° F. If it should be that the temperature in the mix compartment becomes too low, a suitable piece of insulating material such as corkboard or celotex may be placed in the sunken portion of the mix compartment wall between the mix compartment and the hardening compartment.

One Unit Replaces 4 In 'Model' System Of Restaurant

ST. LOUIS—Reversing the modern trend of installing several small systems to replace a multi-temperature refrigeration hookup, James & Co., G-E distributor, recently replaced four separate cooling systems in the Rose Bowl restaurant here with one 3-ton condensing unit serving 11 separate types of refrigeration.

Success of the installation in the Rose Bowl, which seats 300 and is one of the largest in Missouri, resulted in more than twenty other highly specialized restaurant jobs for the James firm.

LOBSTER COOLING IMPORTANT

The new system, engineered by Henry Weis, Jr., provides cooling for fish, seafoods, vegetables, dairy products, and wines. Because the restaurant specializes on lobsters, correct cooling of them was particularly important.

"Freon" condensing unit is located in what was formerly waste space in the center of the basement. Connecting it with the 11 coils are 11 manual valves, arranged conveniently in a double row on the wall. While all coils are controlled by automatic valves, these manual valves permit shutoff in event of failure or non-use of the refrigerated space.

Also in the basement are four 6 x 6-foot cooler rooms for meats, fish, vegetables, and ice cubes. A blower coil in each maintains temperatures of 40° for meats, 38° for fish and seafood, 32° for vegetables, and 30° for ice cubes.

KITCHEN EQUIPMENT

In the rear of the kitchen on the first floor is a small box used for larger, more delicately flavored fish, which is held at 28°. Other kitchen equipment consists of two 8-foot 40° reach-in boxes, and a six-compartment 36° refrigerator for butter, milk, cream, and smaller items.

A 20-stool bar in connection with the restaurant has banks of dry beverage storage boxes, with 24-case capacity, which are maintained at 38°, and a direct-draw beer cooling system.

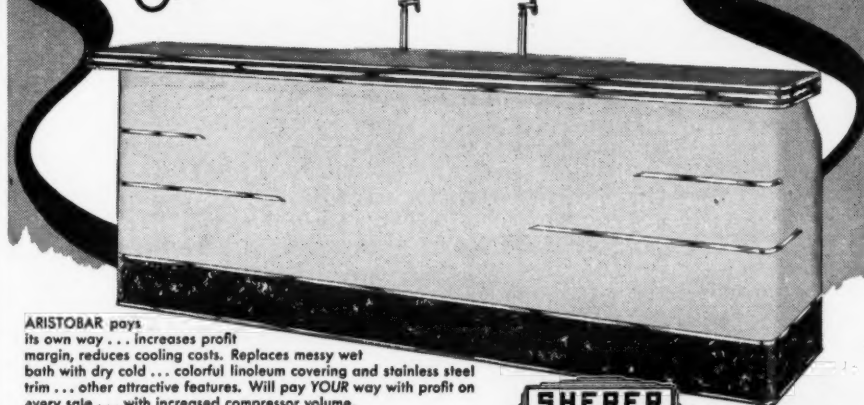
All temperatures were set by a noted New Orleans chef, and are checked twice daily with a permanent thermometer at each location. None is allowed to vary more than 2°.

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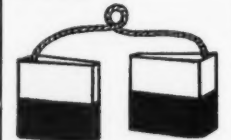
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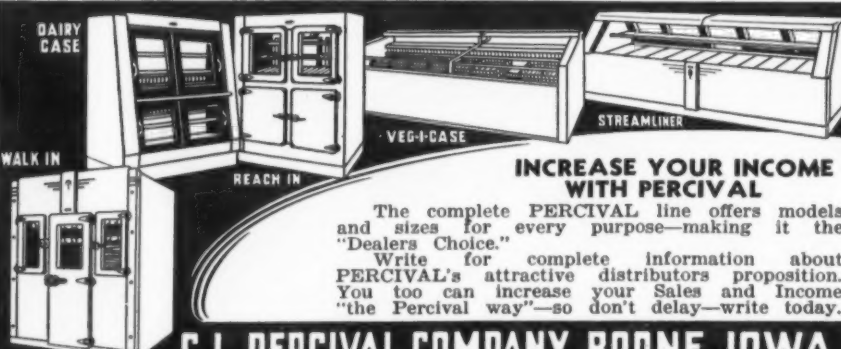
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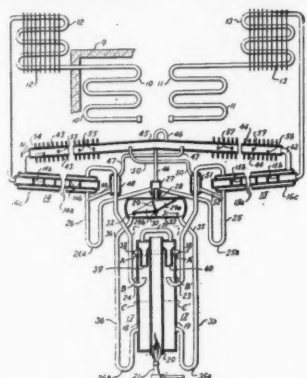
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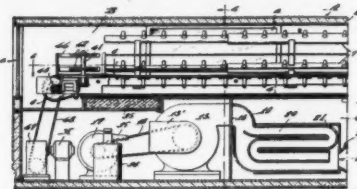
Weeks of April 1 & 8

2,236,575. REFRIGERATION. Wilhelm Georg Kogel, Evansville, Ind., assignor, by mesne assignments, to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Sept. 12, 1939, Serial No. 294,424. 16 Claims. (Cl. 62-5.)



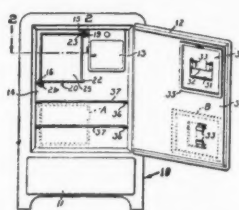
1. In an absorption refrigeration system, a boiler, a plurality of generator-absorbers, a condenser and an evaporator connected to each of said generator-absorbers, means for causing expansion of refrigerant first in one and then in another of said generator-absorbers comprising a conduit from said boiler to each of said generator-absorbers for flow of a heating medium, said boiler having compartments individual to said conduits, and means operable by change in the level of liquid within said compartments for heating one and then another of said generator-absorbers.

2,236,644. COOLING DEVICE. Irwin Kotcher, Brooklyn, N. Y. Original application March 11, 1938, Serial No. 195,387. Divided and this application Dec. 12, 1939, Serial No. 306,854. 4 Claims. (Cl. 62-104.)



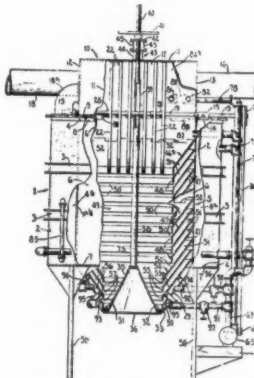
1. In a carton-treating device of the character described, a chamber having a pair of openings in one end thereof, a conveyor passing through one opening into the chamber, a second conveyor in the chamber and passing through the other opening, said conveyors being disposed in parallelism in a horizontal plane, a turntable adjacent the other end of the chamber for transferring cartons from one conveyor to the other, and means arranged within said chamber and in operative position to said conveyors for directing jets of cold fluid against exterior portions of the cartons and into the cartons as the cartons pass into, through, and out of said chamber.

2,236,866. REFRIGERATOR RECEP-TACLE. Carl W. Benson, Altadena, Calif. Application Aug. 4, 1939, Serial No. 288,355. 4 Claims. (Cl. 312-189.)



2. In a refrigerator, a cabinet having a door and having a food storage compartment therein, said cabinet having a pair of spaced receptacle support means therein each adapted to support a receptacle, said receptacle including sides, top, and bottom and having an open outer end, said receptacle selectively engaging either of said support means, a closure member, spaced closure engaging support means on said door, said means on the door being so disposed that a closure engaged with either will be aligned with the open front of the receptacle disposed upon one of the first mentioned support means.

2,236,923. AIR CLEANING APPARA-TUS. Richard M. Smith, Detroit, Mich., assignor of one-half to Herbert A. Stevenson, Detroit, Mich. Application Dec. 29, 1937, Serial No. 182,311. 9 Claims. (Cl. 261-7.)



1. In an apparatus of the character described, a container having a space for liquid, said container having an inlet and an outlet for air, said inlet and said outlet being above the highest level of liquid in said space, means to intercept solid foreign matter in the air admitted to said container through said inlet, said means acting to deposit the solid matter in the liquid in said space, means within the liquid in said space, means within said space operable to separate the liquid from said solid matter, said last-named means comprising a plurality of overlying vertically spaced plate members extending along the inner wall of said container, said plate members extending downward and inward from the container wall, and means to withdraw substantially all of the separated liquid from said space so that the foreign matter substantially devoid of liquid can be removed from said space.

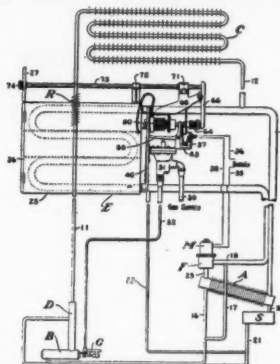
2,237,007. REFRIGERATING APPARA-TUS. Andrew A. Kucher, Dayton, Ohio. Application Aug. 14, 1937, Serial No. 159,156. 2 Claims. (Cl. 62-116.)

2. A refrigerator comprising in combination, a cabinet having a food storage compartment and a machinery compartment; an evaporator in the food storage compartment, means in the machinery compartment for withdrawing gaseous refrigerant from the evaporator and for compressing the same; a condenser in the machinery compartment, operatively connected with said means, for cooling and liquefying the compressed refrigerant; and means for delivering refrigerant from the condenser to the evaporator and forming the sole metering means for controlling the flow of the refrigerant from the condenser to the evaporator, said means consisting merely of a small diameter, substantially non-tortuous tube disposed substantially entirely outside of the evaporator and out of heat exchange relation therewith, the last mentioned means comprising substantially the entire conduit between the condenser and evaporator.

2,237,064. REFRIGERATION. Donald G. Smellie, Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application July 20, 1938, Serial No. 229,193. 22 Claims. (Cl. 62-5.)

1. In combination with a refrigerating system including a cooling unit, means for supplying a cooling medium to said cooling unit, and a thermostatic mechanism responsive to the condition of said

cooling unit for controlling said cooling medium supply means to maintain said cooling unit between predetermined temperature limits and for rendering said cooling medium supply mechanism in-

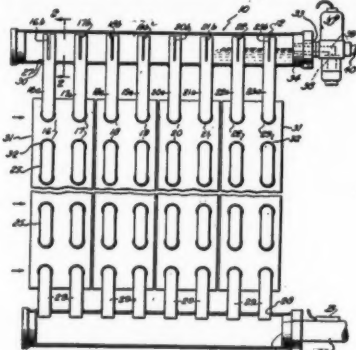


operative irrespective of the condition of said cooling unit when a predetermined frost coat has formed thereon, and means for holding said thermostatic mechanism in position to render said cooling medium supply means inoperative until said cooling unit has freed itself of frost.

2,237,107. LIQUID COOLER. Benjamin G. Newhall, Forest Park, Ill. Application Dec. 5, 1938, Serial No. 243,984. 8 Claims. (Cl. 257-180.)

1. In a liquid cooler, the combination with a cylindrical chamber having spaced corrugated double walls joined only at their extreme peripheral edges to define a closed cylindrical pressure chamber constituting a part of a closed refrigerant system, of means for circulating a refrigerant over the interior corrugated surfaces of said cylindrical chamber, said last named means including a pressure confining path throughout the interior of said cylindrical chamber, means for directing liquid over the exterior corrugated surfaces of said cylindrical double walls to effect the cooling thereof, a sectional casing surrounding said chamber, and means for slidably mounting said casing sections relative to each other for enabling access to said chamber.

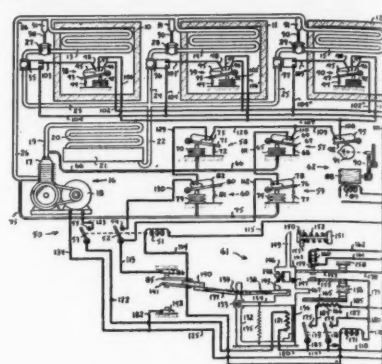
2,237,239. REFRIGERATION APPARA-TUS. Lawrence C. Smith, Buffalo, N. Y., assignor to Pedders Mfg. Co., Inc., Buffalo, N. Y. Application Feb. 26, 1935, Serial No. 8,324. 10 Claims. (Cl. 62-127.)



7. An evaporator for cooling a stream of gas passing therethrough, said evaporator comprising an inlet header and a series of heat exchange devices adapted to be contacted by said stream of gas, each of said devices having an inlet member extending into said header, each of said inlet members having formed therein an aperture below the normal liquid level in said header, the areas of said apertures of the different inlet members varying in size and being graduated to distribute to the respective devices amounts of refrigerant determined by the heat loads on said respective devices.

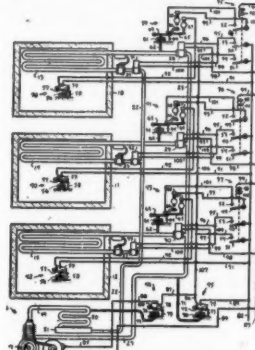
2,237,249. REFRIGERATION CONTROL SYSTEM. George H. Fisher, Minneapolis,

Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Sept. 30, 1938, Serial No. 232,606. 15 Claims. (Cl. 62-4.)



4. In a control system for a refrigerating apparatus having a compressor and a plurality of evaporators for cooling medium in a plurality of zones, the combination of, thermostatic control means for each zone responsive to the temperature of the medium being cooled of that zone, control means responsive to the pressure on the low pressure side of the refrigerating apparatus, means associated with each zone and controlled by the thermostatic control means of that zone to admit refrigerant to the evaporator of that zone upon a call for cooling by the thermostatic control means of that zone, means controlled by the control means and the thermostatic control means for starting operation of the compressor only when any of the thermostatic control means calls for cooling and the pressure on the low pressure side of the refrigerating apparatus rises to a defrosting value and for continuing the compressor in operation until either all of the thermostatic control means are satisfied or the pressure on the low pressure side of the refrigerating apparatus decreases to a predetermined low value, and means operatively associated with said last mentioned means for stopping operation of the compressor at predetermined times whereby the pressure on the low pressure side of the refrigerating apparatus will rise to a defrosting value at least at these predetermined times.

2,237,261. REFRIGERATION CONTROL SYSTEM. William L. McGrath, St. Paul,



(Concluded on Page 19, Column 1)

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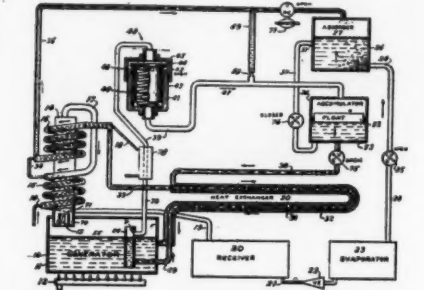
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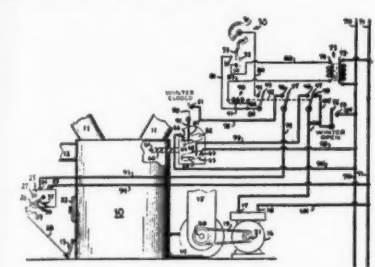
(Concluded from Page 18, Column 5)

2,237,302. **ABSORPTION REFRIGERATION SYSTEM.** Andrew Flukes, Chicago, Ill., assignor to Mills Novelty Co., Chicago, Ill., a corporation of Illinois. Application Oct. 23, 1937, Serial No. 170,571. 19 Claims. (Cl. 62-5.)



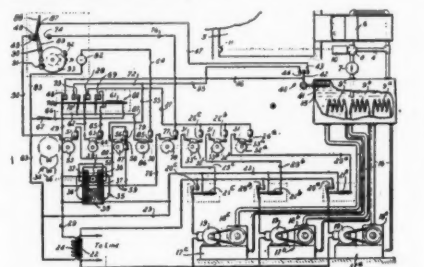
1. In a cooling system including a cooling apparatus having a cooling coil for cooling a space and means for circulating through the cooling coil a cooling fluid having sufficient cooling capacity to lower the temperature of the cooling coil below freezing whereby frosting of the cooling coil may occur, the combination with said apparatus of, valve means for controlling the circulation of cooling fluid through the cooling coil, and control means responsive to the temperature of the space and to a condition normally attendant to a defrosted state of the cooling coil for opening the valve means only upon both an increase in space temperature and the attainment of such condition.

2,237,300. **AIR CONDITIONING SYSTEM.** George D. Bower, Columbia Heights, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Dec. 3, 1938, Serial No. 243,806. 27 Claims. (Cl. 62-4.)



5. In an all year air conditioning control system, in combination, heating means, means for circulating air from the heating means to a space to be heated, control apparatus comprising a space thermostat having contacts which close at a predetermined temperature, a relay controlled by said thermostat and energizable when said contacts close, summer-winter switching means having summer and winter positions and controlling electrical circuits so arranged that in winter position of the switching means the relay controls the heating means and brings about increased air circulation when the relay is in one position, said switching means when in summer position causing said relay to relinquish control of said heating means, said contacts of said thermostat controlling said relay in the same manner in summer as in winter, said relay causing air circulation by said air circulating means when said relay is in its opposite position during summer operation, and means responsive to the temperature of the heating means operable to control the circulating means independently of the space thermostat and relay.

2,237,304. **CONTROL FOR CONDITIONING SYSTEMS AND THE LIKE.** Theodore K. Greenlee, Rockford, Ill., assignor to Barber-Colman Co., Rockford, Ill., a corporation of Illinois. Application April 1, 1937, Serial No. 134,250. 12 Claims. (Cl. 62-4.)

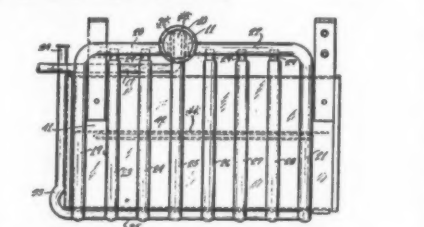


4. In a conditioning system having a plurality of power driven compressors, the combination of means for starting said compressors successively and establishing an approximate balance between the number of compressors in operation and the conditioning demand on said system, and automatically operating means to vary the sequence of starting of the compressors in response to a prolonged demand whereby to distribute wear between the different compressors.

2,237,494. **SEAL FOR REFRIGERATING APPARATUS.** Alex A. McCormack, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application Aug. 31, 1938, Serial No. 227,758. 21 Claims. (Cl. 286-7.)

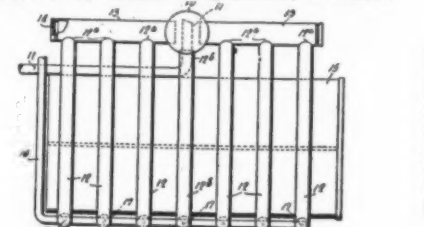
1. The combination of a housing member, a shaft extending through the housing member and rotatable with respect thereto, and a seal between the shaft and the housing member including a sleeve rotatably mounted with and sealed at one end to the shaft, and rotatable seal members, one of which is carried by said sleeve and the other of which is carried by said housing member; said seal members being of metal and forming a running seal, and the one carried by said housing member being a removable insert therein and being secured thereto and sealed therein by a cup-shaped rubber washer which permits said insert to adjust itself to the other seal members.

2,237,500. **EVAPORATOR UNIT.** Frank D. Peltier and Karl F. Schmidt, Indianapolis, Ind., assignors, by mesne assignments, to Philco Corp., Philadelphia, Pa., a corporation of Pennsylvania. Application March 7, 1938, Serial No. 194,311. 10 Claims. (Cl. 62-126.)



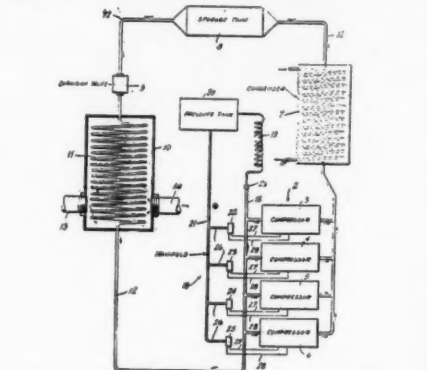
7. An evaporator comprising a cage-like structure having a transverse header at the top portion thereof, a plurality of substantially parallel U-shaped tubular members having their right portions arranged to form the bottom of said structure and their opposite leg portions extending to the top thereof, an endmost U-shaped member having the upper ends of the legs thereof angularly bent to form extensions overlying the upper ends of the legs of the U-shaped members lying between said endmost member and the header, said angular extensions communicating both with the upper ends of the last-named U-shaped members and with said header.

2,237,508. **REFRIGERANT EVAPORATOR.** Lawrence C. Smith, Lyons, N. Y., assignor, by mesne assignments, to Philco Corp., Philadelphia, Pa., a corporation of Pennsylvania. Application July 24, 1940, Serial No. 347,345. 6 Claims. (Cl. 62-126.)



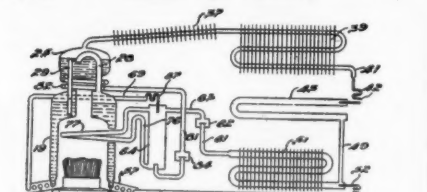
5. An evaporator comprising an elongated suction header, a plurality of transversely positioned sub-headers entering said header and being disposed horizontally, a plurality of depending pipe loops, each loop having terminal portions connected to adjacent sub-headers, and refrigerant supply means organized with said loops.

2,237,574. **CONTROL SYSTEM.** Lawrence M. Persons, St. Louis County, Mo., assignor to Automatic Control Corp., St. Louis, Mo., a corporation of Delaware. Application Dec. 24, 1937, Serial No. 181,648. 9 Claims. (Cl. 62-4.)



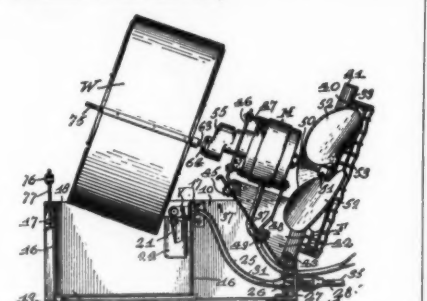
1. In combination, a refrigeration system including a plurality of compressors and a cooling medium line containing cooling medium, and a control comprising a plurality of pressure switches, means operatively connecting said pressure switches to the said cooling medium line, means electrically connecting said switches to said compressors, and means connected in said first means for preventing sudden pressure changes within the said pressure line from being immediately conveyed to said switches.

2,237,622. **ABSORPTION REFRIGERATING MACHINE.** Earl F. Hubacker, Highland Park, Mich., assignor to Borg-Warner Corp., a corporation of Illinois. Application Sept. 25, 1935, Serial No. 41,996. 17 Claims. (Cl. 62-5.)



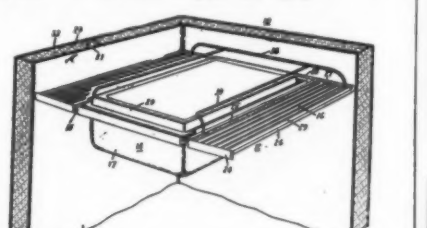
1. A refrigeration apparatus comprising a generator, heating means for said generator, means for varying the supply of heat applied to said generator, an evaporator and an absorber, said heat supply varying means being associated with said evaporator and operable responsive to the thermal conditions therein, means for maintaining said generator and said evaporator and said absorber at different pressures and for continuously supplying variable quantities of liquid from said generator to said evaporator and said absorber respectively in proportion to the amount of heat supplied to said generator and means operable responsive to said heating means for effecting the transfer of strong liquor from said absorber to said generator.

2,237,690. **AIR CONDITIONING APPARATUS.** Raymond A. Robic, Outremont, near Montreal, Quebec, Canada. Application March 15, 1939, Serial No. 262,074. 4 Claims. (Cl. 261-30.)



1. In air conditioning apparatus, a base member, a frame member pivotally connected with the base member, a motor supported on the frame member, an air treating wheel having driving connection with the motor, a fan adapted to blow a current of air through the wheel having driving connection with the motor, and a transversely curved hood supported on the base member and covering the rotary mechanism and having a transverse ridge shaped to direct the air from the blower into the wheel and prevent passage thereof between the periphery of the wheel and the hood.

2,237,820. **FOOD STORAGE RECEPTACLE FOR REFRIGERATORS.** George S. Hill, Erie, Pa., assignor to General Electric Co., a corporation of New York. Application Oct. 11, 1939, Serial No. 298,964. 9 Claims. (Cl. 62-89.)



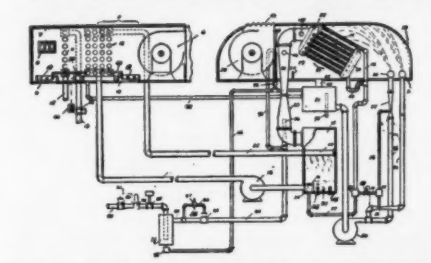
1. A food storage receptacle having variable means providing ventilation therefor, said receptacle being so constructed and arranged that the weight of the material placed therein causes operation of said variable means for varying the amount of ventilation between the inside and outside of said receptacle according to the weight of the food placed within said receptacle.

2,237,820. **FOOD STORAGE RECEPTACLE FOR REFRIGERATORS.** George S. Hill, Erie, Pa., assignor to General Electric Co., a corporation of New York. Application Oct. 11, 1939, Serial No. 298,964. 9 Claims. (Cl. 62-89.)

REISSUES

21,761. **AIR CONDITIONING SYSTEM FOR VEHICLES EMPLOYING STEAM EJECOTRS.** Carlyle M. Ashley, Summit,

N. J., assignor, by mesne assignments, to Carrier Corp., Newark, N. J., a corpora-



tion of Delaware. Original No. 2,081,905, dated June 1, 1937, Serial No. 629,177, Aug. 12, 1932. Application for reissue June 23, 1937, Serial No. 149,919. 20 Claims. (Cl. 62-6.)

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

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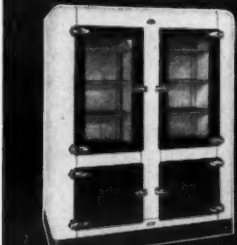
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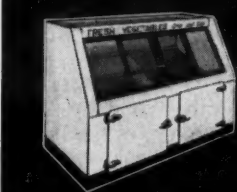
THE AMERICAN BRASS CO.

FRENCH SMALL TUBE BRANCH
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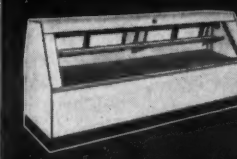
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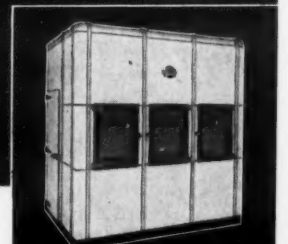
Meat Display Cases. Top Display and Double Duty.



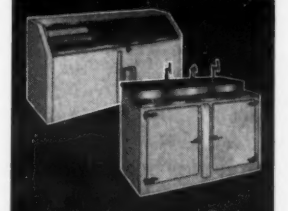
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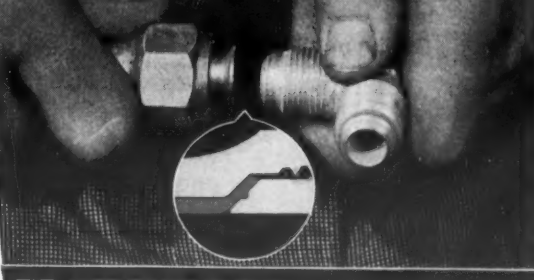
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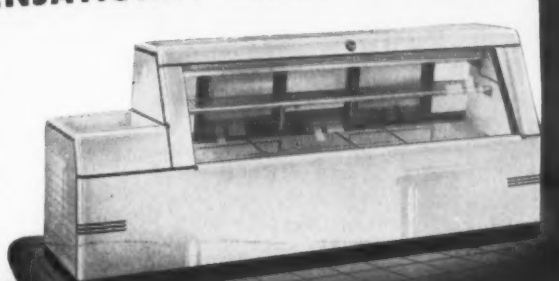
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U. S. Consumers Division Head Urges Solid Front Against 'Prevailing Price'

(Concluded from Page 1, Column 5)

"The uncertainty concerning future prices," Miss Elliott wrote, "has a disruptive effect on markets and may lead to the hoarding of supplies and speculative price increases. There is the danger, too, of inefficiency in production resulting from the knowledge that cost increases can more easily be passed on, and the opportunity may be created to charge unjustified prices because of the difficulty of determining the general prevailing price."

Full text of her letter to Mr. Rau, which comprised her fourth price policy recommendation to manufacturers of consumer goods, in a general program to maintain consumer prices at fair levels, and to prevent price spirals, follows:

"Thank you for your letter of April 1, concerning the 'price prevailing' method of pricing. I consider this practice to be against the best interests of consumers and a direct encouragement to an upward spiraling of prices. There may be cases in which the uncertainty concerning future costs makes it impossible to quote firm prices for distant deliveries. For the great bulk of transactions in most industries, however, this is not important.

"The refusal of manufacturers to quote a specific price at the time of sale, and their insistence that goods be sold on the basis of prices prevailing at the time of shipment, is harmful in three important respects. The uncertainty concerning future prices has a disruptive effect on markets and may lead to the hoarding of supplies and speculative price increases. On the manufacturing side, there is the danger of inefficiency in production resulting from the knowledge that cost increases can more easily be passed on, and the opportunity may be created to charge unjustified prices because of the

difficulty of determining the general prevailing price.

"There is the further tendency when goods are sold on a price prevailing basis to eliminate the bargaining which is necessary to the maintenance of fair prices. Buyers are forced to place orders and leave to the seller the final determination of the price. The dangers of such a procedure are obvious. This type of arrangement between buyer and seller has been called 'blank check buying.' The attempt of certain clothing manufacturers to impose this practice in the fall of 1939 met strong opposition from retailers and was finally abandoned.

"Several weeks ago I recommended the general adoption of three pricing policies which should be followed by both manufacturers and distributors of consumer goods in the present emergency. To this I should like to add a fourth, that all orders between manufacturers and retailers should quote a specific price and that no order should contain a 'price prevailing' provision. With the cooperation of your organization and of the other members of the Retailers' Advisory Committee, I am sure that a solid front can be presented to support my recommendation."

NEW YORK CITY—Miss Elliott's statement was hailed here by Lew Hahn, managing director of the National Retail Dry Goods Association, as a very sound analysis of a difficult problem. The practice of selling at prices prevailing at time of shipment, he said, is the type of "blank-check" operations against which retailers have expressed strong opposition in recent months. Mr. Hahn said he felt certain that retailers throughout the country, faced with the problem of protecting consumers from runaway prices, would appreciate Miss Elliott's statement.

'Madame X' Will Check On 'Canned' Sales Talk

(Concluded from Page 1, Column 1) down into a three-minute "model" sales talk, and copies furnished to all dealers and salesmen. Idea is to have all retail men memorize the model presentation, and deliver it at every customer contact. In this way, no matter where the prospect shops, he or she will hear the same basic sales story.

To encourage dealers and salesmen to make use of the talk, the association has arranged for a mysterious "Madame X" to shop every dealership. If the dealer or salesman gives the model three-minute talk, she will hand him \$2.

Although designed originally for use in the Minneapolis area, an attempt will be made to put the three-minute sales talk on ranges in effect throughout the state, reports A. H. Kessler, promotion manager of North Central Associated Electrical Industries. Meetings have been planned for key cities, at which the plan will be presented by speakers and a dramatic skit.

L.T. Brockbank Named To New Position At G-E

BLOOMFIELD, N. J.—Lucas T. Brockbank has been appointed manager of sales to the government and to builders of products of the General Electric air conditioning and commercial refrigeration department.

For a considerable period, Mr. Brockbank has handled syndicate sales of G-E air conditioning equipment, to chain stores, and other operators of multiple unit businesses.

Price Control Board Outline Its Plan

(Concluded from Page 1, Column 5)

It is the contention of the Administrator that no amount of penalties will increase supplies and that when we reach the point where legal sanctions become necessary we have reached the peak of our productive effort.

The new office will emphasize price administration rather than price control. It has, according to Mr. Henderson, all the authority held by the War Industries Board in the World War, and in addition, more information based upon the experience of the last emergency.

Most powerful weapon of enforcement will be the moral support of the community. Mr. Henderson declared he would not hesitate to name individuals found guilty of price violation.

The Consumer Protection Division, headed by Harriet Elliot, will be one of the centerpieces of OPACS.

Purpose of the Presidential proclamation, creating OPACS at this time, is to get an early start in leveling prices, said Mr. Henderson. He declared that the last war cost us an extra \$15 billion because of price inflation.

G-E Dealers In Florence Name Group Officers

FLORENCE, S. C.—New officers have been elected for the local chapter of the Retail Development League, a sales training organization sponsored by General Electric Co.

These officers are: Ansley Hurst, president; W. H. Jeffrey, vice president; L. E. Kendrick, secretary; Virgil Watson, sergeant-at-arms; and B. D. Paschal, honorary president.

When Engineers In Central New York State Held First Meeting



A big turnout of 82 members and interested guests marked the meeting at Utica, N. Y. earlier this month when plans were made for the formation of a Central New York Section of the American Society of Refrigerating Engineers. Work of getting the meeting together was handled by S. R. Hirsch of Brunner Mfg. Co., Lars Hanson of Carrier Corp., and D. D. Wile of Savage Arms Corp.

Cooper Installs Big Job For Camp Grant Needs

(Concluded from Page 1, Column 5) and 75 and 50% of rated capacity when desired.

To maintain 10° F. in the meat storage room and 35° F. in three other rooms, cooling coils operate with thermostats in connection with

solenoid valves. The coils are equipped with two-speed motors to give variable capacity.

Other refrigeration equipment at the camp includes four MC-40 Filtrine water coolers in mess halls, four RU-11 Day and Night coolers in the hospital, and two RT-65 water coolers in soldiers' recreation rooms.

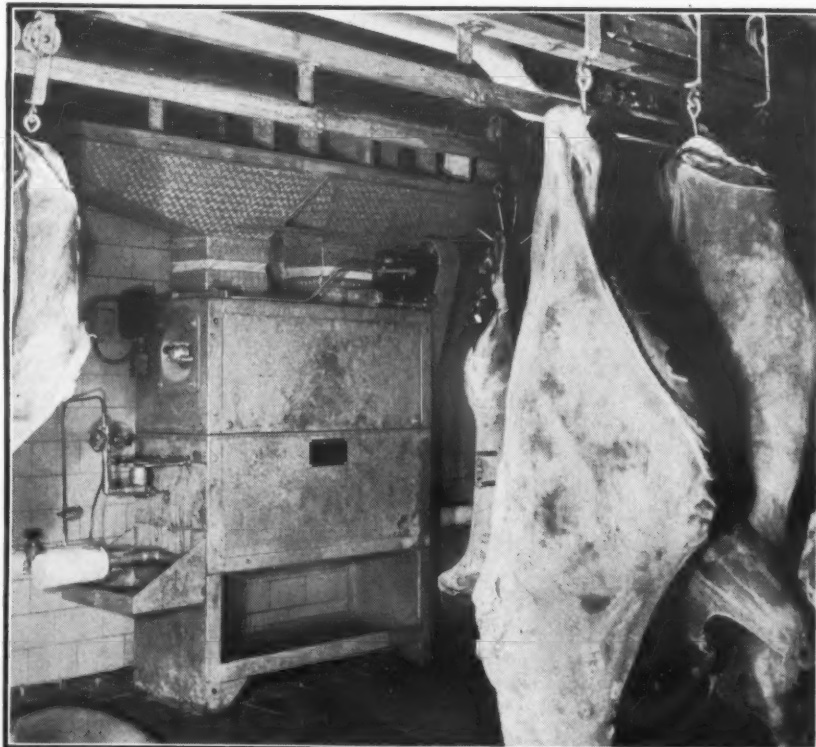
B. Roman and Gene Hammond of the Cooper firm are supervising the commercial installation.

Arnold Heads Universal Heating Line Sales

NEW BRITAIN, Conn.—Robert A. Arnold has been appointed sales manager of Universal heating appliances sold to the electric trade, reports Bret C. Neece, vice president of Landers, Frary & Clark. Mr. Arnold was general sales manager of the Silex Co.

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Part of New . .

Refrigeration installation at Pontiac State Hospital, showing Carrier Cold Diffuser with A-P Thermostatic Expansion Valve. Plans and specifications by J. E. Stephens Co., Detroit. Contractor, P. E. Daubenspeck, Inc., Pontiac. Jobber, J. E. Fischer & Sons, Saginaw. Working drawings by Ray Fisher. Equipment—Brunner and Carrier.

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